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## ESSAYS, MONOGRAPHS, AND CASES.

*Lesions of the Epiglottic Cartilage.* By HORACE GREEN, M.D.  
LL.D., &c.

The epiglottis is subjected to lesions which not only interfere with the functions of this organ, but which are often the exciting cause of general disease,—sometimes of a serious character.

Some of these morbid changes occur much more frequently than we have been accustomed to suppose; and the symptoms to which they give rise are often erroneously attributed to organic disease of the lungs, or to other structural changes which do not exist.

Anatomically viewed, the epiglottis is a fibro-cartilage of an ovoid form, and of a tissue very elastic. It is covered by a mucous membrane which consists of a ciliated epithelium externally, and beneath, this a basement layer which is the true membrane, and a quantity of areolar tissue, all abundantly supplied with blood-vessels.

Scattered over the surface of this lining membrane, and situated in the sub-mucous tissue, are numerous follicular cells, many of which have the openings of their excretory tubes on the laryngeal face of this cartilage. One of these glands, which is composed of several granules, is located between the epiglottis and the os hyoides, and is called the *epiglottic gland*. On the laryngeal face of the epiglottis, the mucous membrane adheres closely to the cartilage; there being

no areolar tissue whatever interposed between the lining membrane and the cartilage. Beneath the mucous membrane on its anterior or lingual surface, considerable areolar tissue is deposited. Disease, therefore, affecting this fibro-cartilage must have its seat, either in the mucous membrane or its follicles, or in the subjacent areolar tissue. We find, accordingly, the principal lesions of the epiglottis to be :—

1st. *Erosions or abrasions* of its mucous membrane.

2d. *Ulcerations* of the membrane and of its glands.

3d. *Edema*, or *infiltration* of its areolar tissue.

These alterations of structure occur, with regard to frequency, in the order in which they are named.

Some of the erosions and ulcerations of the epiglottis to which I propose to call attention, (a portion of them) are entirely independent of those described by M. Louis as lesions proper to phthisis, which he found were present in about one-sixth of his patients who died of this disease ; and were caused, in the opinion of M. Louis, by the constant passage of pus over the mucous membrane.

In many instances I have found these structural alterations to occur as primary and independent affections, so far as tubercular disease is concerned. In other cases they are not only complicated with similar lesions of the tonsils, fauces, and pharynx, but are occasionally associated with tuberculosis.

1. *Erosions of the mucous membrane of the Epiglottis.*

Prof. Hasse, who describes quite minutely those erosions of the mucous membrane of the air-passages, first pointed out by Louis, as alterations peculiar to phthisis, says that these lesions always remain superficial ; the upper layer of the mucous membrane, probably the epithelium, being alone engaged. They are seen in certain localities, as the inferior surface of the epiglottis, the posterior surface of the trachea, and occupying the mucous membrane of the two main bronchi.

"These erosions," continues Prof. Hasse, "are obviously the sequence of superficial irritation of the mucous membrane ; and as they are principally met with in parts which come in contact with tuberculous matter expectorated from the lung, they not improbably owe their existence to this source."\*

M. Trouseau entertains a similar opinion ; for, in speaking of these lesions as described by M. Louis, he remarks : "We have never found erosions except in patients attacked with pulmonary phthisis, which

\* Pathological Anatomy, pp. 357-8.

observation would seem to justify the opinion of M. Louis, that these erosions are owing to the contact of pus which is constantly passing over the mucous membrane of the larynx and bronchi.\* The same opinion with regard to the origin of these lesions is expressed by Andral and Cruveilhier; and more recently by Ryland and Gellerstedt. Indeed, most writers on the pathology of "diseases of the air-passages," since the promulgation of this doctrine by M. Louis, have adopted, and have copied into their writings,—some of them, apparently, without any personal investigation,—these views of the origin of erosions and ulcerations of the epiglottis and larynx.

Both Hasse and Rokitansky describe another form of superficial erosions which occur in certain cases of *typhus fever*, and are found seated "on the posterior wall of the larynx; on the lateral edges, and on the inferior surface of the epiglottis," where they present at first a roundish or lenticular form, with black or discolored edges; and which, often, change gradually into dirty eating ulcers.

During the past few years a large number of cases of erosions of the epiglottis have been noticed among my patients, occurring under circumstances altogether different from those under which they were observed by the above pathologists. They have generally been noticed as being complicated, either with follicular inflammation, or associated with catarrhal irritation of the mucous membrane of the respiratory passages, but in a large majority of cases entirely independent of tubercular disease.

During the last Winter and Spring, especially, a much larger number of cases has occurred, of erosions and ulcerations of the epiglottis, than had been observed during any previous season.

These instances, for the most part, have been found occurring in those cases, in which a persistent, teasing cough following chronic follicular disease, or common catarrhal inflammation, has obstinately resisted all the ordinary measures for its arrestment.

On depressing the tongue in such cases, by means of the ordinary bent spatula, or "tongue depresser," so as to bring the epiglottis into view, this cartilage has been found frequently inflamed, vascular, and its superior border marked, at one or more points, by distinct erosions. In much the largest proportion of cases, these erosions make their first appearance on the left superior edge of the epiglottis.

Next in frequency they will be found occupying its centre; and occasionally, but very rarely, in comparison with the two preceding

\* Treatise on Laryngeal Phthisis, &c. By Trousseau & Belloc. p. 20.

locations, they have been observed on its right border. These erosions are not readily detected, at first, by the inattentive observer; as they are quite small, are only slightly depressed, with a pallid base, sometimes a little reddened, and with whitish, linear edges.

The surrounding mucous membrane is generally inflamed, its delicate network of superficial vessels is red and injected, and the epiglottis itself more or less thickened. The appearance and effects of these erosions may be still further illustrated by the following case :—

CASE I.—I. H., a lawyer, from Virginia, and late State's Attorney, consulted me, May 28th, 1856. He had been affected nearly two years with chronic follicular disease of the throat, for which he had received both topical and general treatment, and had been greatly relieved.

Some six weeks or two months before his visit to New York, a severe cough came on, and was, after a time, attended by a free (apparently) bronchial expectoration, a cough which resisted all the ordinary means employed for its relief. His chest, which was remarkably well developed, was carefully examined, without detecting any signs of pulmonary or bronchial lesions. On examination, the throat revealed some remains of the follicular disease, but nothing sufficient to account for the symptoms present. Indeed, as no cough had existed when the throat was in its worst condition, it could not be attributed to the presence of follicular disease, which appeared to be confined to the upper part of the throat.

In pursuing the investigation, the tongue of the patient was forcibly depressed so as to bring the epiglottis into view, when this cartilage was found to be inflamed and thickened, its mucous membrane red and vascular, and its left superior border covered with erosions.

The patient at this time was harassed by a constant cough, which was attended by an abundant expectoration, and this had been his condition for many weeks.

It will not be supposed that these erosions of the epiglottis were the whole cause of this cough, and of the expectoration. I had seen at this time, and have since seen frequently, cases with these erosions present, unattended by any great amount of cough; but a cough once established, from any cause, and these lesions supervening, I have never seen a case in which this symptom did not obstinately resist all ordinary measures, so long as the erosions continued. These means having been fully employed in this case, the indication



seemed to be to check the irritation caused by the erosions. To accomplish this, the tongue was depressed so as to bring the epiglottis into view, and with an instrument prepared for this purpose, the erosions were touched with the solid nitrate of silver, whilst the body of the cartilage was freely sponged with a strong solution of the same remedy. This was done on the 28th of May, and the operation was repeated two days afterwards, and was followed by a most happy result. The cough was greatly diminished by the first application; and on the 31st, the day after the second application, the patient called, and reported himself almost entirely free from cough and expectoration. A few more applications of the solution were made to the affected parts, in the course of the subsequent week, and Mr. H. returned to his home, apparently entirely free from the unfavorable symptoms with which he came.

I have stated that some lesions of the epiglottis occur with much greater frequency than the profession have been accustomed to suppose. This is certainly true with regard to these erosions. Within a few months quite a number of physicians have brought or sent their patients to my office for examination, who were suffering from a severe cough, and were apparently laboring under bronchial or laryngeal disease, for the treatment of which both general and topical measures had been unavailingly employed by these practitioners. In many of these instances the persistent cough was found to have been kept up by the presence of undetected erosions of the epiglottis; for in nearly all such cases, the arrestment of these lesions was found efficient in promptly relieving the cough.

Several most interesting cases have come under my notice, in which the disease has occurred among physicians themselves.

In one instance a young physician was brought to my office by his friend, an older physician of this city, under whose care and treatment the patient had been for several weeks before I saw him. But inasmuch as a severe and obstinate cough, attended with free expectoration and with pains in the chest, continued to harass him, further aid was sought by both patient and attendant.

On examining the chest and finding no evidence of lesions there, sufficient to account for the symptoms, the throat was inspected, and the patient's epiglottis was found to be twice its natural thickness, was highly vascular, and its entire superior border covered with erosions.

In this case, the principal erosion occupied the *right* superior lateral border of the cartilage, and the doctor was constantly referring

to the right side of his throat as the seat of the greatest amount of irritation. His cough had been very severe for nearly two months, and was attended with much expectoration and with more or less pain in the chest. He had consequently suffered much anxiety about the safety of his lungs.

Canterizations of the border of the epiglottis, with the solid crystal of the nitrate of silver, gave almost immediate relief. The cough and expectoration began to subside, as soon as this remedy was employed. After a few applications of the solid nitrate, a strong solution was employed, and was applied every few days, for several weeks, not only to the border of the epiglottis, but also to the whole body of the cartilage. Under this treatment, the patient recovered perfectly.

Although, in almost all cases, lesions of this nature are promptly relieved by canterizations, yet, in some instances, I have observed a marked tendency in the disease to return, whenever the patient was exposed to the ordinary causes of catarrh. In July, 1855, Dr. Bowen, of Jeffersontown, Virginia, brought his sister, a young lady, to New York, for medical treatment. Miss B. had many of the early symptoms of phthisis, for the treatment of which the ordinary remedies had been long employed by her brother. Complicated with chronic follicular disease, erosion of the epiglottis was found present, and this lesion proved to have been the principal exciting cause of a long continued cough; for, after a few applications to the diseased parts the erosions disappeared, and the cough ceased altogether. On taking cold a few weeks after, the cough returned, with nearly as much severity as at first; and when the epiglottis was examined, it was found to be again eroded. The topical applications were once more successful in affording prompt relief. Miss B. remained three or four months in this city, and during that period, she had several severe attacks of cough, and in every instance erosions of the epiglottic cartilage were ascertained to exist, and these were always removed, and the cough arrested, by topical medication. She, however, ultimately, quite recovered.

Under the head of erosions, I will allude to only one other instance of this affection. It is a case of much interest, as it occurred in an elderly physician of this city—a member of the Academy, and a gentlemen well known to most of its fellows.

This physician came to me early last Winter, expressing much anxiety about his case. He had had an obstinate cough for several months; had employed in his own case, he said, all the ordinary

means which he had been accustomed to use with his patients ; but had found no permanent relief. He had only slight expectoration, but an harassing dry cough. Sometimes the cough would occur in paroxysms, and with great severity.

The Doctor was confident the irritation was seated in the larynx, and as he had himself applied topical remedies to his own throat for some time, he desired that the sponge-probang should be carried down to the superior portion of the larynx.

This was done, on several occasions, and was followed by considerable relief ; but still the cough continued, and was always greatly aggravated by exposure to cold, and by the vicissitudes of the weather.

In the meantime, the Doctor's epiglottis had not been examined, because attention having been called so directly to the larynx, as the seat of the disease, this organ had been overlooked. It was now inspected, and found in an inflamed and thickened condition ; its delicate network of vessels was red, and highly injected, and its border eroded.

Applications made to this organ, as in the preceding cases, gave prompt relief, and for a time Doctor M. thought his disease was removed. But he soon found that on every slight exposure to cold, his cough was sure to return, and that too, after the epiglottis appeared to be in nearly a healthful state. As the applications now only afforded temporary relief, they were for a time suspended. Irritation in the throat soon became more harassing than ever ; and on the 20th of March, Dr. M. called and declared that for several days and nights his cough had been almost unbearable—that he had coughed every five minutes night and day, and that neither expectorants, nor anodynes, gave him any relief.

The Doctor had given much attention to his own case, and he expressed the opinion that the same irritation that affected the epiglottis had extended along its lateral border, to the aryteno-epiglottic folds, and that erosions or ulcerations in this location, were causing the incessant cough.

This opinion could not be confirmed by inspection, as in the case of erosions of the border of the epiglottis, for these epiglottic folds are concealed from view, behind this cartilage ; they can be reached, however, by topical applications, and at the patient's request, I applied, by means of a small sponge-probang, a strong solution (50 grains to the oz. of water) to the membranous folds, extending from the base of the epiglottis, to the arytenoid cartilage, which folds for

the lateral borders of the aperture of the glottis. The relief was immediate. Before this application, the great irritation at the opening of the glottis had caused an almost incessant cough, for forty-eight hours. For several hours succeeding the operation, the Doctor declared that he did not cough once, and the following night with him was one of quiet sleep.

The prompt relief which a single application of the caustic to an irritated and eroded epiglottis will sometimes afford, has often been with us a matter of great surprise, as well as of gratification.

Within a few weeks, a gentleman came to New York from St. Louis, who had been treated several months by a skilful and eminent physician for chronic follicular disease. Frequent applications of the nitrate of silver solution, had been made to the fauces and pharynx of the patient, and with much benefit, so far as the disease of these parts was concerned. Still, the patient complained of great irritation, at the top of the wind-pipe; and, following the advice of his physician, he consulted me.

An examination of his case revealed an epiglottis inflamed, and considerably thickened at its apex, with an erosion directly in its centre. A single free application of the solid nitrate of silver at this point gave, for a time, entire relief, and these applications being repeated daily for a few days, removed permanently a tickling and an irritation that had continued, and had caused a cough for many months.

In some instances the erosion will occupy all the superior edge of the epiglottis. I had an opportunity of exhibiting a case of this nature to Dr. A. H. Stevens, and to the chairman of that committee which was appointed by this Academy, a year or two ago, to visit me on another subject. It was the case of a lady from Rhode Island, who, for a twelvemonth or more, had labored under a severe spasmodic cough, occasioned, as her physician supposed, by chronic follicular disease. In this instance the entire superior border of the epiglottis was covered by a linear erosion. It was a well-marked instance of this lesion, and these gentlemen may remember the case.

So far as my observation goes, these erosions are of rare occurrence in very young persons. To one such instance, however, I will briefly allude, as it is a case of much interest.

Some time ago, Mr. J. Hurlburt, a merchant of this city, brought one morning to my office his young daughter, a child some five or six years of age, who, as the father stated, had had a cough for several weeks, for which the family physician, who is an experienced practi-

tioner and a member of the Academy, had prescribed many of the ordinary remedies. Still her cough increased, and for several days preceding her visit to my office, had harassed her night and day, until the child was nearly worn out with the increasing irritation—an irritation which the patient constantly referred to the throat. Suspecting the nature and locality of the irritation, I attempted to examine the throat; the fauces and pharynx were inflamed, and although it was difficult to bring the epiglottis into view, so as to decide positively that erosions were present in that location, yet the symptoms were so like those which had occurred in other cases where erosions of this cartilage were found, that I ventured to make a free application of a strong solution of the nitrate of silver to the epiglottis. The result confirmed the diagnosis; the cough ceased immediately after this single cauterization; nor was there any return whatever of this symptom thereafter. This occurred many months ago, and within the present week Mr. Hurlburt assured me that his daughter "had not coughed since that visit to my office."

The announcement of the great frequency with which these lesions which we have been considering occur, will, I doubt not, surprise the profession.

Since my attention has been called to their existence, I confess I have been amazed, not only at the number of cases in which they have been found, but at the occasional severity of the symptoms caused by these apparently insignificant lesions, and the frequency with which these symptoms have been attributed to other causes.

I am indebted to my assistant, Dr. Richards, who has kept a careful record of these cases, for an account of the number of instances in which, during the last twelve months, erosions of the epiglottis have been observed.

Of four hundred and two patients affected with some form of disease of the respiratory passages, who were examined and treated between the 1st of May, 1856, and the 30th of April, 1857, there were found thirty-four instances of well marked *erosions* of the epiglottis. Of this number twenty-one cases occurred in males, and thirteen in females. In upwards of twenty of the above cases, these lesions existed entirely independent of tubercular disease.

2. *Ulcerations of the Mucous Membrane, or of the Glands, or of the Epiglottis.*

It is important to understand the pathological differences, if any exist, between erosions and ulcerations of the mucous membrane. M. Louis, in describing the lesions of the mucous membrane of the

epiglottis and larynx, in phthisis caused by the contact of tuberculous matter, speaks only of *ulcerations*. He undoubtedly considered *erosions* as but the first degree of ulceration, for he remarks that some of these ulcerations escape notice on account of the flattening of their edges, and "their pinkish color," and that "in two cases only did the superficial ulcerations of the epiglottis reach the fibro-cartilage beneath.

Prof. Hasse declares that tuberculous erosions are limited to the epithelial covering, and "hence they are not always detected at first sight, but that true ulceration of the mucous membrane in phthisis presents a notable difference from the above." \*

I have watched these lesions with great care, and, however long continued, have found them always remaining superficial.

I have never observed an erosion to degenerate into a true ulceration.

Primary ulcerations of the epiglottis—many instances of which I have observed to exist entirely independent of tuberculous disease—differ essentially, in their anatomical characters, from the erosions of the same organ.

According to Hasse, the tuberculous ulcer, or the ulcer peculiar to phthisis, occurs most frequently in the larynx, but they are found in many instances, observes Hasse, on the posterior face of the epiglottis, and they appear to originate in various ways.

"Tubercle commonly," says he, "accumulates within the capsules of the muciparous glands, elevating the latter into little eminences, and ultimately, when the softening process is completed, leaving corresponding ulcers in their stead."† In other cases, again, tubercle cells, instead of normal cells, form beneath the epithelial covering, and irritating the contiguous textures, produce first, loss of substance, and finally ulcers. But ulcerations of the epiglottis occur, as we have before stated, wholly uncomplicated with tubercular disease of the lungs. I have the record of many such cases, which have been treated within the past four or five years. They have also been found associated with both tuberculous and syphilitic diseases.

So far as I have been able to notice the inception of primary ulcers of the epiglottis, they have seemed to originate in the follicles of the membrane, and not to be the result of erosions.

At first, an enlarged, or pimple-like follicle appears on the border of the epiglottis, surrounded by an inflamed and highly injected portion of mucous membrane. Soon the follicle softens, and degenerates

\* Op. citat. pp. 357-8.

† Op. citat. p. 359.

into an ulcer, with irregular edges and an inflamed and reddened circumference.

In many instances these ulcers remain for some time superficial, destroying only the mucous membrane ; in others, they penetrate deep into the fibro-cartilage, and occasionally they result in the total destruction of the epiglottis. Two such instances have been observed by me in which the epiglottic cartilage was completely destroyed by ulceration. To these cases I may allude hereafter.

To the first case of primary ulceration of the epiglottis, which I have on record, my attention was accidentally called. I had no preconceived opinion of any lesions of this nature, except such as Louis, Cruveilhier, and other pathologists, had described, as being peculiar to, and complicated with, tuberculosis—lesions, in short, which have only claimed the attention of the practitioner *after* the death of his patient ; and not such as are the efficient cause of disease, and whose removal will effectually arrest diseased action.

The following is the case to which I refer :—

Several years ago, Mr. E. Bulkley, a shipping merchant, of this city, aged about twenty-five years, applied to me on account of a cough under which he had labored for several weeks. It came on gradually, at first, but latterly had much increased in severity. A careful examination was made to ascertain the cause of the cough. Slight redness was observed about the fauces, but not sufficient to account for the severity and persistence of the most prominent symptom. Not the slightest indication of disease could be found about the chest of the patient. The epiglottis was not inspected, because at this time we were not accustomed to examine this organ for pathological revelations. Indeed, at this period, large numbers of the profession had never seen a *living* epiglottis !

General measures were adopted in the treatment of this case, and for several weeks alteratives, followed by anodynes, expectorants, sedatives, and various other means, were employed to relieve the cough, without producing any permanently beneficial effect. On the contrary, at the end of the third week this symptom was much augmented ; and was attended, moreover, with a free expectoration. The patient was daily losing flesh, and he now began to complain of erratic pains in his chest.

These symptoms alarmed both himself and his friends ; and, urged by the latter, he determined on taking a sea voyage. To inform me of this, his intention, he called about four weeks after he first came under treatment. At this visit I again examined his chest, without



discovering any evidence of thoracic disease. His throat, too, was more thoroughly inspected than at any former time. On exposing the epiglottis to view, I was surprised to find the upper border of this organ occupied by a large ulcer, which had destroyed a considerable part of the superior central portion of this cartilage.

I informed my patient of the discovery, and proposed immediate cauterization. The ulcer was touched with the solid nitrate of silver without producing any pain or irritation whatever! Mr. B. has since frequently declared that his "cough ceased from that hour."

It was not altogether arrested by this single application; but the relief was remarkable. He coughed but little for the next twenty-four hours; and two or three similar applications subsequently made, were effectual in entirely arresting the cough; and my patient regained, rapidly and permanently, his health.

It cannot be doubted, I think, had this local source of irritation been continued, that disease of the lungs, in this case, would have been ultimately developed; and it is equally probable that an ulcer of the epiglottis, discovered after the fatal termination in such a case, would be considered not the *antecedent* and exciting cause of the general disease, but as the *sequent*, and would be classed among the tuberculous ulcers of M. Louis.

In several instances, all the prominent rational signs, with some of the earlier physical manifestations of pulmonary disease have been observed to follow long-continued ulceration of the epiglottis, all of which symptoms have been seen to disappear after these lesions have been healed. Within two years I have treated several medical men with erosions or ulcerations of this cartilage, whose symptoms were such as to have given them much anxiety about the safety of their lungs. I will here give briefly the case of a physician well known to the profession of New Jersey.

Dr. L—— S—— called on me in June, 1855, to consult me about his health. During the preceding year he had been aware, he informed me, of some chronic irritation of his throat, for which he had occasionally applied the nitrate of silver solution. This gave him relief for a time, but three or four months before his visit to me, he began to cough, apparently from an increased irritation in the throat, but this irritation was not now relieved by the cauterizations. This cough, on the contrary, increased in severity, was obstinate, not being much influenced by any measures taken to relieve it. After a time some expectoration accompanied the cough, and these symptoms were followed by uneasy sensations or wandering pains about the chest.

He lost flesh, and his strength diminished. Under these circumstances he determined, as he informed me, to give up his professional duties for a time, and seek to restore his health by a change of climate. It was at this stage of his impaired health that I saw him.

After hearing the doctor's history of his case, and particularly after examining his chest, and finding there no adequate cause for his severe and protracted cough, and other unfavorable symptoms, I suspected the presence of concealed erosions or ulcerations about the glottic or epiglottic regions. His throat was examined; the mucous membrane of the fauces and pharynx was moderately inflamed, and some of its follicles were enlarged.

With some difficulty the epiglottis was brought into view, when an ulcer, which had destroyed the mucous membrane and had penetrated into the cartilage, was found in the centre of the apex of this organ. I was at once satisfied that the teasing and persistent cough which for several months had so annoyed Dr. S., was kept up by this condition of the epiglottis; and the result of the treatment adopted confirmed this opinion. The ulcer was well canterized with the solid crystal of the nitrate of silver, and a strong solution applied to the mucous membrane of the fauces and pharynx. As in the preceding case, this single canterization arrested the cough; and although Dr. S. returned several times subsequently and had the applications repeated on account of some remaining irritation, yet no further paroxysms of coughing occurred; his unfavorable symptoms all disappeared, and he regained a good degree of health, which, I believe, still continues.

I have had an opportunity to exhibit these lesions of the epiglottis to many physicians who had never before seen anything of the kind in the living. Within a few weeks, when honored by a visit from three of the Senior Surgeons of the U. S. A.,—Drs. McDougal, of Baltimore, Finley, of Philadelphia, and Satterlee, of New York,—the case of a gentleman of this city, with a central ulceration of the epiglottis, was exhibited. This gentleman had been affected for two years with a cough, which he compared to the whooping cough, because of its severe and spasmodic character. Topical applications to the local disease in this case arrested the cough in the course of a few days.

When ulcerations occur on the laryngeal face of the epiglottis,—and in the tubercular cases observed by M. Louis, this surface of the organ, and generally speaking its lower half, was their almost exclusive seat,—it will be impossible to detect their presence by ocular

inspection, as you can in those cases in which the border is invaded. I have described elsewhere the alteration which takes place in the aspect of the epiglottis, when that cluster of follicles which is situated at the base of this organ, and which constitutes the epiglottic gland, becomes the seat of ulceration. Its naturally crescentic shape will be considerably increased when ulceration to any extent exists in this location.

In addition to the symptoms which have been enumerated, there is frequently some degree of pain in the larynx when the lower portion of the cartilage is ulcerated, together with more or less difficulty in deglutition. Aphonia is also present, because, generally speaking, there are, coincident with these lesions, at the base of the epiglottic gland, ulcerations in the larynx, and about the vocal chords.

The following case is of much interest, inasmuch as an opportunity was afforded, after treatment, of comparing the lesions with the symptoms which existed during life; and of observing the effects of the treatment employed upon these lesions.

G. H. W. called on me for medical treatment May 10, 1850. His case presented all the well-marked symptoms of Laryngeal Phthisis. There was ulceration of the larynx. Complete aphonia existed, with a severe cough; difficulty of swallowing, with dryness and heat in the throat; some pain was present, which was increased on coughing. On examining the chest there were found indications of the presence of tubercles in both lungs, and evidence of a cavity in the left lung. The throat was inflamed, the epiglottis thickened and vascular, its border serrated with erosions, and its lateral edges approximated, so as to give the cartilage a more crescentic shape than is natural.

It is unnecessary to detail at length the treatment adopted. Both general and topical remedies were employed. Applications of a strong solution of nitrate of silver were made successively to the fauces, the epiglottis—its border and laryngeal surface—to the glottis, and subsequently into the larynx and trachea. The topical treatment was continued daily, or every second day, through the months of May, June, and July.

Under this treatment the patient gradually and constantly improved. He regained his voice, his cough diminished, and his strength and flesh were considerably increased. Mr. W. was absent during the month of August, but he returned in September, and the applications to the trachea being again renewed, and for a time continued, were followed by such an improved state of his health,

that he returned to his occupation, which was that of book-keeper in a large mercantile house of this city. On the first of January, 1851, he called on me. At this time he coughed occasionally, and had some slight purulent expectoration, but he still continued greatly improved. After this I lost sight of him for several years, and knew nothing more of him until informed of his death by my colleague, Dr. H. G. Cox, who has kindly furnished me with the history of his last fatal attack, and of the autopsy of the case.

Until within a few days of his death, Mr. W. had continued to enjoy such health that he was able to attend constantly to the duties of his calling. Dr. Cox, who attended his family, had seen him often, and had occasionally prescribed for him. Early in December, 1853, nearly four years after I first saw and treated him, he had left his place of business, one very cold and windy day, and was returning to his home. Wishing to see a man who lived in the West part of the City, he jumped from the omnibus at Canal street, and ran for some distance, facing a strong cold wind, when he was suddenly arrested by a hæmorrhage from the lungs. He was obliged to be taken home in a carriage. Dr. Cox was sent for, who found him raising, quite frequently, masses of coagulated blood. Every effort was made to arrest the bleeding, but all measures were alike unavailing. The hæmorrhage, which lasted two or three days, continued till the patient died. The body was examined by Dr. Cox. Evidences of former tubercles were found in both lungs, but no recent ones. In the left lung were the remains of a tuberculous cavity; and, opening into this dry cavity, was the mouth of a small ruptured blood-vessel, the hæmorrhage from which had caused the patient's death.

On examining the epiglottis, larynx, and trachea, Dr. Cox found the cicatrix of a large ulcer at the centre and base of the epiglottis; and scattered over the mucous membrane of the larynx and trachea the cicatrices of numerous small, superficial ulcerations were found. All had been perfectly healed.

Knowing that this patient had been under my care several years before (as above detailed), Dr. Cox removed the larynx and a portion of the trachea, and sent the morbid specimen to me. This I still have. By examining this pathological preparation, the marks of the superficial ulcerations along the tracheal membrane may be plainly seen, particularly the cicatrix of the large ulcer at the base of the epiglottis.

Now, I respectfully submit, if these erosions and ulcerations were caused, *primarily*, by the passage of tuberculous matter over the mu-

cous membrane of the parts where they were found, how is it that they were healed? (for the purulent expectoration continued long after the ulcerations were arrested) or, being healed, how should they have continued healed, through so long a period, when the *cause* of their production was remaining for a time constantly in operation?

I shall be pardoned, I hope, for alluding to one other instance of epiglottic and laryngeal disease, inasmuch as the gentleman of whose case I shall briefly speak, was several months under the treatment of the celebrated Hahnemann, and his final directions, as given to this gentleman, illustrate a principle in Hahnemannian practice which I believe has not yet been published to the world.

Mr. G. B., a merchant, formerly in this city, visited Europe in 1838, principally on account of a disease—laryngeal phthisis—under which he had labored for several years. After consulting several eminent men in London, he went to Paris, and placed himself under the immediate care of Hahnemann.

Being in Paris at that time, and occupying rooms in the same house with Mr. B., I saw him daily, and watched with much interest the effects of Hahnemann's treatment on the case.

Mr. B., who had been under the treatment of Dr. Gramme (a Homœopathic physician of this City) before leaving for Paris, had the most entire and implicit confidence in this plan of treatment, and gave, therefore, during a period of three months, undeviating attention to all the rules and directions of his physician. It is sufficient to say, however, that no effect whatever was wrought upon his disease; and, at the close of the above period of time, he left Paris for home, utterly disheartened, "to die among his friends." I had preceded him, and arrived in New York a few weeks before he came, which was at the close of the year 1838. Soon after he reached home, or early in 1839, I was called to see him, and his case was one of the first I ever treated by topical medication.

It was a strongly marked case of chronic laryngitis, attended with ulcerations of the epiglottis, and of the larynx and trachea. He was much emaciated—had severe cough, with expectoration of purulent matter.

Mr. B. now gave me the history of his treatment under Hahnemann, and why he quitted him so abruptly.

Until within a short period of the time he left, Hahnemann had assured him of the positive, ultimate success in his case, of the "potentized" remedies. But finding, at length, that no effect was produced on the disease, he finally informed Mr. B. that such was the

peculiar character of his disease, that it could not be influenced by Homœopathic potions, and that the nature of the disease must be *changed*. He, therefore, advised Mr. B. to *contract syphilitic disease*, and await its secondary effect—the occurrence of ulcers of the throat; that these would eradicate his present disorder, and that Homœopathy, in turn, would find no difficulty in expelling from his system the syphilitic poison!

This patient was treated by me, through many months, by topical applications, as in the preceding cases, conjoined with appropriate general remedies, and ultimately quite recovered his health. Mr. B. is still living, and will bear testimony to the correctness of the above statement.\*

The number of cases of ulcerations of the epiglottis, which occurred among the four hundred and two patients, treated during the last year, amounts to *twenty-six*—as estimated by Dr. Richards: about one-third of this number were females. I am confident, however, that a part of these cases, which have been recorded as ulcerations, were, in reality, erosions; because, at first, an erosion was considered as but the first stage of ulceration. The exact proportion of these lesions, therefore, has not been definitely ascertained. From more recent and careful observation, I am inclined to the opinion, that erosions of the epiglottis occur with fourfold more frequency than ulcerations of this organ.

### 3. *Œdema of the Epiglottis, or infiltration of its areolar tissue.*

It has been stated that the mucous membrane of the epiglottis, adheres closely to its posterior surface; there being no areolar tissue, whatever, interposed between the membrane and this cartilage on its laryngeal face. Consequently, in œdema of this organ, the infiltration of fluid must take place on the lingual surface; where considerable areolar tissue is deposited; and cannot by any possibility be effused on the posterior or laryngeal face of the epiglottis. It is not claimed by any pathological writer, that *œdema* of the epiglottis, like the erosions and ulcerations of this organ, is peculiar to phthisis, or

\* I publish this statement concerning the practice of Hahnemann, for the particular benefit of Prof. Henderson, of Edinburgh. When Prof. Simpson was preparing his masterly exposition of the "Tenets and Tendencies of Homœopathy," I was in Edinburgh, and at his request gave him some illustrations of the principles and practices of Homœopathy in America. These he has embodied in the above work. In Prof. Henderson's Reply to Dr. Simpson's unanswerable facts and arguments, he devotes several pages of his work to a most appalling attack on me, and to the ridiculing of my name, instead of attempting to reply to the facts and illustrations I had given. I therefore record the above, concerning the practice of that great light in Medicine, that Prof. H. may have it to comment upon, in the next edition of his defence of Homœopathy.

to any other disease of the air-passages. It is an alteration of structure, having its origin, generally, in catarrhal inflammation; and is most frequently observed in epidemic catarrhs, or influenzas. During the prevalence of an influenza, that occurred to some extent in New York, in the Winter of 1853, and again in 1854, I observed many cases of œdema of the epiglottis.

In the course of the past Winter, also, several persons, with this affection, have consulted me at my office for medical treatment. As we have stated, the infiltration of the sub-mucous areolar tissue occurs on the lingual surface of the cartilage causing the epiglottis frequently to assume a most anomalous aspect. Its lateral edges being rolled back and approximated, it presents, when the intumescence is considerable, much the appearance of a round tumor at the base of the tongue. Partial, and in some instances complete aphonia, is caused by this lesion of the epiglottic cartilage.

In a paper which was furnished by the writer, and which was read before the London Medical Society in April, 1854, on "Aphonia, arising from organic lesions," the following case of œdema of the epiglottis is related:

CASE—"A young gentleman, who, three weeks before, had had an attack of the prevailing epidemic [influenza], called on me, January 29th, 1853. The disease, in its early stage, was attended by a total loss of voice; and it was in reference to this voiceless condition that my opinion was desired. Some degree of cough was present, attended with slight expectoration, but the respiration was but little affected. On depressing the tongue of the patient, the epiglottis was readily brought into view, and it certainly presented that very anomalous aspect to which I have alluded.

Extensive infiltration having taken place in the sub-mucous tissue, on its anterior face, the cartilage was enormously enlarged, its lateral borders were turned backwards and approximated, and its whole appearance was that of a round, puffy tumor, lying at the opening of the glottis. Examining with the finger, for the arytenoid cartilages, they were found to be not involved in the œdematous infiltration; and this exemption from the disease, in this location, accounted at once for the slight degree of difficulty presented in the respiration of the patient.

To procure a reabsorption of the infiltrated serum, a strong solution of nit. argent. was applied freely to the epiglottis, and to the whole faucial region. A profuse expectoration of adhesive mucus, from these parts, followed the application. The topical remedy was



continued daily, for several days. Under its use, the tumefied epiglottis diminished constantly; and at the end of a week the patient could speak aloud, although his voice had a muffled sound. Continuing the applications a few days longer, the epiglottis, at the end of this time, was found reduced to its normal size, and the patient's voice and general health were fully restored.

That the loss of voice in this case, as well as in many similar cases which have been observed depended on the intumescence of the epiglottis, has been proved repeatedly by the fact, that when the epiglottis has been thus œdematous, voicelessness in most cases has been present, and also by the other fact, that the voice in most of these cases returned after the œdema of the cartilage had been removed.

In some cases we have had œdema of the epiglottis, complicated with ulceration of this cartilage.

The following interesting case is of recent occurrence, and is one of this nature:

CASE.—Mr. J. Dillon, a watchmaker residing in the Eastern part of the city, was brought to me, March 24th, 1857, in an extremely feeble condition. His wife, a strong robust woman, accompanied him, and aided him from the carriage into my office. I was struck with his peculiar appearance. In some respects he resembled a patient in the last stage of phthisis. He was entirely anæmic; his countenance sallow and bloated, with complete aphonia, and a most harassing cough; and, although very feeble, was not emaciated.

His wife gave a history of his case; stating that her husband had enjoyed good health (with the exception of having been occasionally slightly troubled with hemorrhoids), until about three weeks before, when he took a hard cold, which was followed by inflammation and ulceration of the throat, and an entire loss of voice. A most severe spasmodic cough, likewise, came on, which for nearly three weeks, had harassed him day and night.

To relieve this obstinate cough, and improve vocalization, his attending physician had administered repeated emetics. The operation of these, together with the violent coughing, greatly increased his hemorrhoidal difficulty, so that, as both declared, the patient had lost from half a pint to a pint of blood daily, during the last two weeks. This accounted for the anæmic condition of the patient, and for his great feebleness. In searching out the cause of his cough, the lungs and throat were examined. The sounds on the right side were nearly healthy, a slight dulness on percussion was observed under the left clavicle, the inspiratory murmur was diminished in intensity, in

comparison with the right side, and expiration was prolonged.

The thoracic symptoms, however, were not sufficient to account for the severity of the cough. The patient stated that his throat had been ulcerated, but his physician who had cauterized it repeatedly, assured him that the ulcers were all healed. Still, as his cough was in no degree relieved, he had come to ask my opinion of his case. Depressing the patient's tongue with some force, so as to bring the epiglottis into view, this cartilage was found not only greatly œdematous, but its left superior border was covered by a large unhealthy looking ulcer. Judging from past experience, in such cases, I was at once fully satisfied that this lesion of the epiglottis was the cause of the protracted cough. I therefore desired him to return to his physician, and request him to come to my office, with the patient, the following day (for I was very anxious that he should know of this concealed local difficulty in his patient's case); or, if this was not convenient, to request him to examine for himself the epiglottis; confident that if the Doctor discovered the ulceration he would be able to relieve it, as he had already relieved others, in the upper part of the patient's throat. But the patient returned the next day, without the Doctor, bringing the request that I should treat the case, and the assurance of the Doctor that it was not necessary he should be present.

The treatment of this case was commenced, by applying a solution of the crystals of nitrate of silver, 80 grs. to the ounce, not only to the ulcerated border of the epiglottis, but to its whole lingual surface, and an alterative was also prescribed, in doses of a fluid drachm twice daily.

R.	Potass. Iodid.	-	-	-	3ij
	Proto Iod. Hydrarg. gra.	-	-	-	ij
	Tinct. Gentianæ				
	Syr. Sarsap. co.	-	-	-	aa 3ij

M.

*March 26th.* Find the patient greatly relieved, so far as his cough is concerned, but extremely prostrated, from the great loss of blood, which had escaped from the hemorrhoidal tumors. He has discharged, say his attendants, "half a pint of blood" several times in the twenty-four hours. The last discharge being still in the vessel, was examined, and found to consist of dark coagulated blood, half a pint at least, in amount.

The patient's face, hands and feet are bloated, and it is quite evident that unless the hæmorrhage be speedily checked, he will die

from loss of blood. An examination was made immediately after an evacuation of blood, when three large hemorrhoidal tumors were found. The mucous membrane, which covered these, was ulcerated at many points, through which openings the blood was constantly oozing.

It was determined to operate upon these tumors, with the *nitric acid*, instead of the knife or ligature; accordingly the next day, the 27th, aided by my assistants—Drs. Richards and Farrington—the tumors being brought down by an effort of the patient, I painted their surface freely with the nitric acid; a sponge wet with a solution of carbonate of soda was then applied to neutralize the redundant acid, and the parts being well smeared with sweet oil, were pressed back above the sphincter. The hæmorrhage was almost entirely arrested. A small amount of blood was discharged the next day, when the remaining portions of the tumors were again cauterized with the acid, after which the hæmorrhage ceased altogether. The operation proved perfectly successful.

During the two days, in which attention was given to the treatment of the piles, the epiglottis was neglected, and the patient's cough again increased. A few more applications were made to the epiglottis which reduced the œdema, and healed the ulcer. Tonics were administered to the patient, and he made a rapid recovery. He is now quite well, and is attending daily to his ordinary occupation.

It will be difficult to give the exact proportion of patients affected with œdema of the epiglottis, for in most instances of ulceration of the epiglottis, and in many cases of long-continued erosions of this organ, more or less œdema of the cartilage was found to be present. Dr. Richards has recorded twenty-nine cases of this lesion, which were observed among the four hundred and two patients to whom reference has been made. Eight only of the twenty-nine were females.

With those physiologists who have been accustomed to consider the integrity of the epiglottis, as being essential to the perfect act of deglutition, this may be an interesting inquiry—how far are the functions of this organ interfered with, by the lesions we have described? Ordinarily, neither erosions nor ulcerations of the border of the epiglottis, will increase, to any extent, the difficulty of deglutition. Two cases have come under my notice, in which the epiglottis of the patient was entirely destroyed by œdema and ulceration; and yet, in both instances, these patients, after a few

weeks, could swallow, either solids or liquids, without the slightest inconvenience. In both these instances the destruction of the epiglottis was caused by ulceration following extensive œdema of this organ; a condition which supervened upon a constitutional syphilitic taint. In the first instance, I did not see the case until the epiglottis was nearly destroyed by ulceration.

The second case was that of an unmarried gentleman, of New York, who, several years before, had contracted syphilis, of which he had supposed himself to have been cured. After taking a severe cold in May, 1855, which was attended with inflammation of the throat, ulceration of the tonsils and soft palate set in, and was followed by œdema and ulceration of the epiglottis.

When I first saw this patient, the disease had been progressing several weeks. A large ulcer had perforated the velum, and several smaller ones were about the left palatine arch, and in the sub-tonsillary fossa. The epiglottis was extensively œdematous, and its superior portion much ulcerated. The act of swallowing was both difficult and painful. Constitutional remedies were administered, and the ulcerated points were touched with the solid caustic. Under this treatment the ulcerations healed rapidly; the œdema of the epiglottis was reduced, and the patient, at the end of two or three weeks, could swallow without difficulty. He returned to his home in the country, and continued better until some time in July, when he had another attack, and came back to the city for further treatment. Similar measures were adopted, and at the end of a week he again returned home greatly improved in health. I saw no more of him until the 19th of October following, when he again called on me; and on inspecting his throat at this time, I was greatly surprised to find that two-thirds of the epiglottic cartilage was already destroyed by ulceration. The remaining portion was freely cauterized with solid nitrate, but the ulceration was not arrested until the epiglottis was almost entirely destroyed, a very small part of the cartilage only remaining. During the progress of the ulceration the patient found but little difficulty in swallowing morsels of solid food, in moderate quantities, but when he attempted to take liquids of any kind a violent spasmodic and suffocative cough ensued, by which the fluids were frequently ejected through the nose. After a few weeks, however, the parts adjusted themselves to the exigency of the case, the glottis was closed without the aid of the epiglottis, and deglutition was accomplished, and has ever since been performed without any embarrassment whatever; nor has phonation, in any degree, been inter-

ferred with by the loss of the epiglottis. This gentleman's case I have had opportunities of exhibiting to many physicians. By forcibly depressing the tongue, the lips of the glottis—not being concealed by the epiglottis—can be seen, and on directing the patient to make an effort at deglutition, the superior parts of the arytenoid cartilages have been seen to close latterly, like a double valve, over the glottic cavity.

In still another way we are able to demonstrate that the glottis in this case, is closed after the manner I have described. By thrusting the middle and longest finger over the base, or roots of the tongue, the opening of the glottis can be reached by its point; and, on the moment of its touching the lips of the glottis, the irritation will cause a spasmodic closure of this opening, which can be distinctly felt by the finger.

All this accords with the facts elicited, and the conclusions adopted, by M. Longet, who has performed many interesting experiments on dogs, by completely excising the epiglottis, in several of these animals, and, observing, subsequently, the effect of this operation on the act of deglutition.

He found that solid food, after the removal of the epiglottis, still passed with facility, but that in the deglutition of liquids, some portions of the fluid would escape into the glottis, causing the convulsive cough. M. Longet also established this fact, that the closure of the glottis, sufficient to protect the trachea in deglutition, is still effected, ultimately not only after the loss of the epiglottis, but after a division of the nerves which control all the muscles proper to the larynx.

This occlusion of the glottis, under such circumstances, he found was effected, not through the influence of the crico-thyroid, nor the thyro-hyoid muscles, for these were paralyzed by a division of the nerves, but through the *inferior constrictors of the pharynx*, which by embracing the diverging alæ of the thyroid cartilage, folded them one against the other; thus approximating the borders of the glottis, and closing, effectually, the opening of the larynx. In the cases to which I have referred, in which ulceration had destroyed entirely the epiglottis of the patients, the occlusion was effected apparently in the manner pointed out by Longet, for in both these patients, (and the experiment was made by several medical men besides myself,) in touching the opening of the glottis, the apices of the arytenoid cartilages, which form the lateral borders of this aperture, could be felt distinctly to close upon the end of the finger.

What, then, is the special function of the epiglottis, if its presence is not absolutely necessary to the integrity of deglutition?

The arytenoid muscles are the especial *constrictor* muscles of the glottis, and most physiologists have asserted that these muscles receive their nerves from the superior laryngeal; but M. Longet has demonstrated that they are supplied with filaments from the recurrent nerve, and that the mucous membrane covering the lips of the glottis, or the supra-glottic vestibule, in which is located that exquisite sensibility which is disturbed by the smallest drop of fluid, or the contact of any foreign body,—that this space receives its filaments from the internal branch of the superior laryngeal nerve. These two nerves communicate freely with each other, but they have no connection with the epiglottis, consequently the application of irritants to this body, will have no influence upon either the motor or sentient nerves, peculiar to the larynx. But when the irritation of the sensitive mucous membrane at the entrance of the glottis, occurs, it is quickly transferred to the constrictor muscles of the larynx. It is therefore not correct to state, as many anatomists do, that the epiglottis of itself “closes completely the opening of the larynx” in deglutition.

This cartilage being placed between the entrance of the larynx and the base of the tongue, is pressed downwards by the abasement of the latter, at the same moment that the larynx is moved upwards and forwards in the act of deglutition, and the epiglottis is, in this way, moulded upon, and partially closes the glottis, protecting, at the same time, the sensitive mucous membrane which covers the supra-glottic space.

Although contrary to the ordinary belief, yet we announce the fact, one which can be demonstrated any day,—as it has been a score of times, to medical men,—that the epiglottis in its normal condition is an almost insensible organ; it may be touched with the finger with the handle of an instrument, without producing any irritation. It may even be cauterized, with the solid nitrate of silver, and no unpleasant sensation will be perceived by the patient, until the mucus which dissolves the caustic runs down and reaches the lips of the glottis, when a convulsive cough is produced.

When, however, this cartilage is eroded, or ulcerated, these lesions cause an irritation, which is not unfrequently followed by a severe and persistent spasmodic cough. This irritation, and consequent cough, I have been inclined to attribute to the morbid, or ulcerated secretion, running down and coming in contact with the

exquisitely sensitive mucous membrane which covers the supra-glottic space ; for this cough ceases at once, as we have seen, when this morbid exudation is arrested or changed. The special functions of the epiglottis, therefore, are, first, to render perfect the integrity of deglutition ; for, as M. Longet affirms, although men and animals when deprived of it, swallow without difficulty solid food, yet, it is not the same with liquids, for this cartilage serves to direct, past the two lateral portions of the larynx, the drops of liquid which, after deglutition, still lie upon the dorsum of the tongue, and which flow over the epiglottis, and by it are prevented from falling into the supra-glottic vestibule.

2d. In the act of vomiting, the occlusion of the glottis is effected by this cartilage, and thus the matters vomited, are prevented from entering the trachea. In rumination also, in animals, the alimentary ball is, in the same way, hindered from falling into the glottis.

CONCLUSIONS. The principal propositions embodied in this paper may be summed up in the following conclusions :

1st. The epiglottic cartilage is subject to serious alterations of structure, which, it is believed, have not received that attention in practical medicine which their importance demands. These lesions, which are ordinarily the result of inflammation, are *erosions* of the mucous membrane of the epiglottis. *Ulcerations* of the membrane and of its glands ; and *adema* or *infiltration* of its areolar tissue.

2. Both erosions and ulcerations, although occasionally found associated with tuberculosis, yet are often found to exist as primary disease, being the antecedents, and in many instances, the exciting cause of other grave affections.

3. Erosions occur much more frequently than ulcerations ; they differ from the latter in being more superficial, as they are confined to the mucous membrane, and ordinarily to its epithelial layer.

4. Primary ulcerations of the epiglottis, are alterations of structure, differing essentially, as we have seen, from the erosions of this organ. They originate apparently in the follicles of the mucous membrane, which soften, ulcerate, and penetrating the fibro-cartilage, destroy, ultimately, a portion of the epiglottis, and if not arrested, prove the cause of still more serious disease.

5. Edema of the epiglottis, or infiltration of its areolar tissue, is a lesion of this cartilage of somewhat frequent occurrence—the result, ordinarily, of catarrhal inflammation. It is attended, generally, with loss of voice, difficulty of deglutition, and is occasionally complicated with ulcerations of this cartilage, by which, in some instances, the epiglottis has been completely destroyed.



6. The epiglottis, which is almost insensible in its normal state, becomes, when diseased, frequently the source of great irritation to the more sensitive adjacent parts. The presence of this cartilage is not indispensably necessary to ensure deglutition, as deglutition may be performed in the absence of this organ. It is necessary, however, to render perfect this act; but its most important function is to cover over and protect that exquisitely sensitive portion of mucous membrane which occupies the supra-glottic space, and which is the true sentinel at the glottic opening.

But the most important practical conclusion is found in these propositions, that some of the lesions which have now been described are often, it is believed, not only among the earliest manifestations of thoracic diseases, but are themselves in many instances, the *true exciting cause* of these affections; and furthermore, this postulate once established, that we have it in our power, by timely, topical medication, to arrest, positively, cases of disease which otherwise would, and in many instances which do, terminate fatally.

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*Successful Removal of the Entire Inferior Maxillary Bone for Osteosarcoma.* By Dr. MAISONNEUVE, Surgeon to the Hospital of la Pitié. From a paper presented to the Academy of Sciences, August 10th, 1857. Translated for the MONTHLY from the *Gazette des Hopitaux*.

It is but a few years since the entire removal of the inferior maxillary bone was considered as an undertaking so dangerous that no French surgeon had dared to resort to it.

Beside the extreme difficulties by which its execution appeared to be surrounded, beside the fear caused by the vicinity of the carotid arteries, we were persuaded that after this mutilation, the tongue, deprived of its anterior attachments, would necessarily draw itself back and cause suffocation. It was especially believed that, supposing a cure was attained, such a mutilation would leave the patient in a deplorable state, and destroy permanently both the power of mastication and of speech.

Such was the general opinion on this subject, when, in 1853, I had the honor to present to the Academy a young girl on whom I had recently practised the entire removal of the jaw, and in whom none of the accidents, just spoken of, were encountered. However, as

this operation was performed at two times, it might be supposed that this circumstance had neutralized a part of its inconveniences and its dangers. But in 1856 I had occasion to perform this operation again, in a young man whom I had the honor to present to the Academy. In this second case the operation was rapid and easy ; no accident hindered the recovery. Phonation was intact, and thanks to the ingenious dental apparatus constructed by Messrs. Fowler and Preterre, the young man could easily chew solid food.

The new case, which I have the honor to submit to the Academy, adds nothing of importance to those I have just referred to, but it confirms them completely ; and then these facts together make a point from which we can already deduce practical consequences of great interest.

CASE.—On the twenty-third of June, 1857, a young girl named Matilda Saumon, came with her mother to consult me for a large tumor which she had on the lower jaw. This tumor, which, according to the patient, appeared only ten or twelve months before, had taken on a rapid development. It had already invaded all the right side of the maxillary bone, quite to, and even compromising the ascending ramus. On the left side it extended as far as to the first large molar. It was the seat of lancinating pains, which however recurred at somewhat long intervals—five or six times a day. The teeth were complete, except the first large molar of the left side, which had been drawn. The soft parts were perfectly healthy.

After a careful examination of the state of affairs, I was of the opinion that the disease of the young girl had its seat in the osseous tissue itself ; that it belonged to the class of osteosarcomas ; and that there would be great danger of a relapse by saving the smaller portion of bone, which appeared to be still healthy, and in which, at the best, only two teeth could be preserved. Consequently I proposed the complete disarticulation of the jaw, which was agreed to by the parents and by the young girl. This operation was performed June 30th, 1857.

1. The patient being put under the influence of chloroform, I made in the middle line of the lower lip a vertical incision, which penetrated to the bone.

2. By means of a chain saw I divided the bone at the *symphysis mentis*, which permitted me immediately to establish the correctness of my diagnosis as to the nature of the disease.

3. With the point of a bistoury I divided the gums longitudinally within and without the dental arch.

4. Without any instrument I rapidly separated the periosteum with the end of my finger ; then having arrived at the insertions of the masseter and internal pterygoid muscles, I tore them off forcibly, as well as the nerves and the dental vessels.

5. With the point of my curved scissors I cut the insertion of the temporal muscle.

6. Finally, by an abrupt ( *brusque* ) motion, I pulled away the bone, tearing the articular ligaments and the insertion of the external pterygoid muscle.

This first part of the operation being done, I proceeded to the disarticulation of the left side, which was rapidly accomplished, and according to the same principles.

It was a remarkable thing that, after this operation, I did not need to use any ligature. The dental arteries, torn with the finger, did not lose a drop of blood ; the labial arteries, divided by the bistoury, stopped bleeding as soon as I had brought together the two halves of the lip by the twisted suture ; the tongue, retained by its insertions into the periosteum, had no tendency to fall back. Deglutition was performed from the first day ; finally, no accident came to hinder the recovery, which was complete in the fifteenth day.

Now, six weeks have passed since the operation ; the face has recovered its form and its regularity, and, except mastication, which can only be performed by the tongue till an artificial set of teeth is prepared, all the functions of the mouth are performed as if the patient had not undergone any operation.

Here there are three cases of entire removal of the inferior maxillary bone—all three successful, and all three perfectly exempt in their execution, in their sequents, and in their results, from those difficulties, those accidents, and those deformities which have hitherto been found. We therefore believe that we may properly lay down these conclusions :—

1. The entire removal of the inferior maxillary bone may be subjected to precise rules.

2. It is neither more difficult nor more dangerous than a large number of common operations.

3. It is not followed by any great deformity.

4. It does not interfere with any important function.

5. It allows perfect application of a set of artificial teeth.

6. It has every claim to rank as a regular operation.

We may remark, that our three operations were performed in the sub-periosteal method, the principles of which, enunciated and devel-

oped by M. Flourens, find daily new and valuable applications in practical surgery ; and we do not hesitate to refer the greater part of the fortunate results of our attempts to the care which we have taken to conform to those principles.

No other method, in fact, would have permitted so rapid and so sure an execution ; no other method would have enabled us to guard so completely against hæmorrhage ; and, above all, no other would have permitted us to preserve so complete a point of support to the tongue and the other muscles, without taking into consideration that it is not impossible for a new osseous arch to form between the two layers of the membrane.

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*Double Monstrosity.* By G. J. FISHER, M.D., of Sing Sing, N. Y.

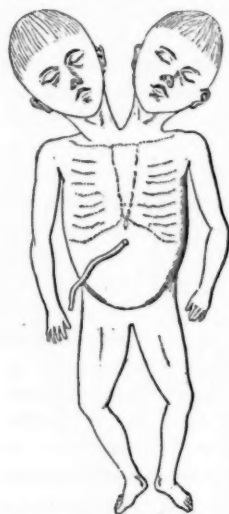
On the 11th of August, 1857, I was called to see a lady who was threatened with symptoms of miscarriage. On hastening to the house I found her lying comfortably in bed. She directed my attention to a mass which she had passed a few moments before, after a single protracted labor pain. On examination it was found to consist of a placenta, with the membranes entire. Upon opening the sac and discharging the liquor amnii, a fœtus with two heads was discovered. The patient, a native of this country, aged 36 years, is a person of a delicate and feeble constitution. She has but one living child, although she has been delivered nine times, at various periods of gestation, from the third month to the full period. No malformations or twins have before occurred.

According to her own statements, she had, in this instance, advanced to between the fifth and sixth month of pregnancy.

The fœtus measured ten inches in length ; the shoulders were three-and-a-half inches in breadth. Two heads of equal size and appearance, were attached, each by a distinct neck, to the body, which was single. The heads were both hydrocephalic, but in every other respect normally developed. The chest was very broad at its upper part, the shoulders being three-and-a-half inches apart ; the body gradually diminished to the hips, which were no broader than usual in fœtuses of this period. There were but two arms and two legs ; the extremities were much emaciated. The genitals, which were female, were natural. Upon opening the chest, the thoracic cavity was found to be very large, but single. It contained one large heart, which occupied the

central part of the thorax ; but one aorta proceeded from it, which sent off two sets of carotid arteries. Two sets of lungs were found ; the middle ones were united by two-thirds of their extent. Two trachea led to the lungs, which were equally developed.

One broad diaphragm separated the chest from the abdomen. On opening the abdomen one very large liver, one spleen, and one pancreas were found. An œsophagus from each mouth communicated with one common and single stomach ; the intestines were single and natural. Only one kidney, which was situated in the right lumbar region, was discovered ; the bladder and uterus were natural. After removing all the thoracic and abdominal viscera, two perfect and entire spinal columns were found, converging as they approached the sacrum and coccyx, where they laid beside each other, but were not united together. To the dorsal vertebræ of each spine were attached twenty-four ribs ; the middle ones were united together by their distal extremities, no sternum intervening. The junction of the middle set



of ribs formed a prominence or ridge, which partially divided the chest into two thoracic cavities. The external sets of ribs were larger than the middle ones, and were attached to a very broad but single sternum. No trace of rudimentary upper or lower extremities, to complete the two individuals, were found ; two scapulas and two clavicles alone were discovered.

Everything necessary to carry on the functions of organic life, in an independent extra uterine existence, was supplied. Prehension, mastication, deglutition, digestion, respiration, circulation, secretion, innervation, &c., are all functions that probably could have been performed had this monster unfortunately been born living at the full period.

The accompanying cut will give a very fair idea of the general outline of this monstrosity.

*Case of Ulceration of the Appendix Vermiformis—Perforation—Peritonitis—Death.*

At the session of the New York Pathological Society on the 8th of July last, *Dr. Sands* presented a specimen illustrating ulcerative disease of the vermiform appendix ; accompanied by the following history :

Mr. S——, aged 22, by profession an artist, while engaged in his studio, at an early hour on the 30th June, was overcome with a sense of exhaustion, and fainted ; from this he soon recovered, and returned to his boarding house, where he breakfasted, and after an hour's rest went back to his studio, and continued labors until 12 o'clock, M., when he took his dinner of beefsteak and porter, supposing by such generous diet to overcome his feelings of lassitude. After dinner he rested for three hours, and then left his boarding house to fulfil some engagement he had made, but returned in a short time to his room and bed, with severe pain in the right iliac region, and great prostration. This was soon followed by vomiting of a greenish color. At 8 P. M. I first visited him ; he then complained of great pain in the right iliac region, immediately over the caput coli. This was greatly increased on pressure. Other portions of the abdomen free from pain. Headache, with great nervous excitement ; had not experienced any chill ; no heat of skin ; pulse quick and feeble ; constant vomiting ; tongue red at the tip and dry ; bowels constipated. Considering the case to be one of inflammation of the caput coli from constipation, ordered mustard poultice and ice to allay vomiting, and a pill of cal. coloc. and nux. vomica every three hours.

July 1st, 9 o'clock, A. M.—Symptoms continue the same ; bowels not open ; pulse 120 and stronger ; ordered ol. ricini  $\mathfrak{z}$ i, to be followed by an injection in three hours. 10 P. M.—Symptoms more alarming ; vomiting continues ; pulse sharper and fuller, 130 ; skin hot and dry ; countenance anxious ; occasional hiccup ; consider the last symptoms as very unfavorable, and probably indicating sloughing of the vermiform process ; ordered leeches and fomentations, with calomel and opium pills every three hours.

July 2, 9 o'clock.—Passed the night more tranquilly, and slept a little ; bowels open twice ; hiccup and vomiting continues ; leeches bleed freely ; pulse 132 and feeble ; no heat of skin ; pain over the abdomen general, but most severe in the caput coli, and ascending portion of the colon. Continue cal. and opium.

4 P. M.—Patient sinking ; pulse very feeble ; cold, clammy sweat ;

very restless ; order opium gr. 1 every 2 hours, with strong beef tea and brandy and water. 10 P. M.—No better, do not think he will survive through the night.

July 3, 9 o'clock A. M.—Found his symptoms much as last night ; continue the opium occasionally, with beef tea and milk punch. 10 P. M.—Rapidly sinking, and died at 11 o'clock P. M.

Post Mortem made by Dr. Sands 12 hours after death.

The specimen exhibited consisted of the caput coli, appendix vermiformis, and lower portion of the ileum. The appendix was about three inches in length, and was fastened to the inferior and posterior part of the cæcum by adhesion. It was dilated about its middle, from the presence of an intestinal concretion, in which were found a number of strawberry seeds, and small solid particles, probably earthy phosphates. The mucous membrane of the appendix was the seat of sloughing ulceration, which, near its extremity, had perforated the several coats, permitting the escape of a feculent matter, and giving rise to acute peritoneal inflammation, of which the patient died. Besides these morbid appearances, there existed disease of the solitary and agminated glands of the small intestine, the glands having the aspect which they often present in typhoid fever. Dr. Sands inquired whether any other than an accidental relationship might be supposed to exist between the disease in the appendix vermiformis, and that of the glands of the small intestine, and if so, which ought to be regarded as antecedent. The greater intensity of disease in the appendix favored the idea that it had extended from below upwards. A certain number of cases, however, were on record, in which foreign bodies of considerable size had been found in the appendix after death, that had remained there without causing any disturbance. It might be, therefore, that in the present case the concretion would have remained likewise harmless, had not an additional source of irritation been furnished by the extension downwards of disease, which had commenced in the small intestine.

*Dr. Harris* said that his experience tended to confirm the latter view, he having in several instances noticed ulceration of the follicles of the appendix vermiformis, coincident with ulceration of Peyer's plates, in typhoid fever.

*Dr. Clark* thought the discussion of this question a useful one, and suggested that the following inquiry be decided by future observations, viz : Whether this disease of the glands of the small intestine, ever exists independently of some constitutional cause ; he being of opinion that such an one might generally, if not always be recognized.



*On Scarlatina*: A Clinical Lecture delivered at Hotel Dieu, Paris. By M. TROUSSEAU. Reported by Dr. Leon Blondeau. Translated from the *Gazette Hebdomadaire*, for the MONTHLY. (Continued from page 159.)

The *angina of scarlatina* is one of the most difficult diseases to describe properly or to recognize readily. To point out its simple or severe forms is, in general terms, easy; but it is not so with one of the varieties of the latter, which we shall study in its turn, in which diphtheritis arises as a complication, disconcerting the previsions of the physician, and giving to the angina of scarlatina a character of fearful seriousness.

Scarlatina is essentially an anginous disease, if you will permit me this expression. However benign it may be, it is seldom that it is unaccompanied by pain in the throat, as it is seldom that rubeola, however light it may be, is unaccompanied by pain in the larynx. This pain in the throat is also met with in variola, and the presence of three or four pustules upon the pharynx explains it; but the angina of variola differs essentially from the angina of scarlatina.

From the first day of the disease, the veil of the palate is red, of a tint analogous to the skin, deeper however; the tonsils, slightly swollen, are of a violet color. As the disease progresses, after two, three, or four days, there appears upon one of the tonsils, sometimes upon both, small, whitish concretions, ordinarily of a milky white, at least when they are not discolored by any substance ejected from the stomach in vomiting. Examining them more nearly, by removing them with the handle of a spoon, you will perceive that they differ from diphtheritic false membranes; these of a yellowish white are adherent, and when they are seized, by means of forceps, they come off in shreds; the concretions of scarlatina, pulpy, but not adherent, have not the characteristics of false membrane, resembling rather those concretions which arise, for example, upon the surface of bad ulcers.

The disease progressing, the intensity of the angina may become so great as to interfere with respiration, and especially with deglutition; fluids taken, return by the nose; the voice becomes nasal, and the ganglions of the neck, principally those of the angles of the jaw, are engorged. When not interfered with by medication, or when a mild course of medication is adopted, this angina retrocedes with the disappearance of the eruption upon the skin of scarlatina. The tonsils throw off their concretions, remaining red, and sometimes excoriated: the disease is cured. The throat and tongue, however, still remain sensitive, and this excess of sensitiveness persists longer

upon the first of these parts than upon the second. It ends by a kind of desquamation analogous to that which we have noted as taking place upon the tongue. Such is the ordinary form, the simplest form of scarlatinous angina. There are other more severe forms: there is one, in particular, to which I have already alluded, and which I have almost invariably seen to terminate fatally. I shall now speak of this form.

Some individuals are attacked with scarlatina of moderate severity: they are slightly delirious at night, restless, pick their bedclothes; the pulse is quite frequent, and the soreness in the throat moderate. The disease passes to the eighth or ninth day; recovery seems certain; the fever abates, the eruption disappears, and the family feel secure. Suddenly a considerable engorgement is observed at the angle of the jaws, occupying not only this region, but the neck also, and sometimes a part of the face. A sanious liquid, fetid, and very abundant, flows from the nares. The tonsils are very voluminous, the breath is very offensive; the pulse suddenly becomes very frequent and small; the delirium reappears, and other nervous symptoms reërise; the delirium continues; coma succeeds, and, at the same time, the skin becomes cold, the pulse more and more feeble, and the individuals succumb, after three or four days, in a slow, painful manner, or die suddenly, as though from syncope.

How can this be explained? It may be asked, if it be not diphtheritis which complicates the scarlatina?—for these phenomena resemble so much the terrible forms of diphtheritis, those forms which destroy adults, as well as infants, before the croupal affection has had time to reach the larynx, the false membranes being confined to the nasal passages, the ears, and fauces; these phenomena resemble so much those terrible forms of malignant diphtheritis, that we are tempted to believe that it is not scarlatina, but this last woful disease, that has destroyed the patient.

I am the more inclined to believe this because, in some cases, the larynx is invaded. Graves cites some observations of persons who died of croup following scarlatina, or, recovered from this exanthematous fever, after having thrown off tubular false membranes, moulded upon the trachea. Graves, in citing these facts, has reproached me with having mistaken this form of the disease. I had, in fact, heretofore mistaken it. I said: scarlatina does not love the larynx; but during my service at the Children's Hospital, I found so extraordinary an identity between malignant scarlatinous angina and malignant diphtheritic angina, that I wavered in my opinion.

Now I cannot help believing—although I dare not affirm it, my convictions not being sufficiently established,—that these phenomena, of which I have just spoken, are none other than the symptoms of diphtheritis appearing at the close of an attack of scarlatina, as a most serious complication. Patients die, in fact, with all the symptoms of diphtheritic poisoning: general coldness, small pulse, fetidity of the breath, both by the mouth and nose, universal paleness of the skin, a frightful dissolution of the tissues—symptoms which are not found in any other kind of severe disease. It is possible that persons being subjected to particular conditions in the midst of an epidemic atmosphere—which is especially witnessed in hospitals for children, where diphtheritis is almost always present—it may be that the angina of scarlatina becomes the point of attraction for a diphtheritic exudation, absolutely in the same way as a little excoriation behind the ear, as an ulceration of the vulva, of the folds of the skin, as any other wound may, in persons placed in the same epidemic conditions, become the point of departure for the manifestations of diphtheritis. What tends to strengthen me in this opinion, is the fact that of all the anginas arising suddenly at the ninth or tenth day of scarlatina, I do not recollect to have seen a single case get well; while for the angina scarlatina, even very severe, but commencing with the scarlatina itself, and reaching its height towards the sixth, seventh, or eighth day of the disease, for this angina recovery is the rule, which often takes place without the aid of art.

When we take up the subject of the treatment of scarlatina, I shall speak to you of the treatment of the angina of scarlatina. Now I will simply say to you, that the croupal angina of scarlatina (I do not speak of that severe form to which I have drawn your attention, but the simple form which we have said is almost always accompanied with pultaceous croupal concretions), this simple croupal angina of scarlatina acts very differently from the severe angina, from diphtheritic angina; for while this is very mobile, and tends towards the nose and larynx, the other on the contrary remains generally limited to the pharynx, and for it I maintain the proposition which Graves has condemned; *Laryngem amat evitare*. The angina of scarlatina is then pharyngeal, very different from the angina rubeola which is laryngeal and from the angina of variola, which is both pharyngeal and laryngeal. The voice of those affected with the angina of scarlatina is nasal, but it is sonorous; it does not undergo any other modification than that it meets with in passing into the mouth. In rubeola the timbre of the voice is, on the contrary, very often altered

from its formation in the larynx; it is not modified in passing the throat.

In some cases towards the close of the disease, towards the decline of the eruption, other symptoms appear upon the neck, or elsewhere: these are the *bubos* of *scarlatina*.

All pestilential diseases are accompanied with bubos. Putrid fever has its mesenteric bubos, for you know that towards the ninth or tenth day of that disease the mesenteric ganglions can acquire the size of a pigeon's egg, and even more. Scarlatina, which is also a pestilential disease, has then its bubos. They occupy the cervical region; the lesions which determine their evolution are seated in the throat. From the commencement of the disease you will perceive the ganglionic engorgements upon the sides of the neck and at the angles of the jaw. Sometimes towards the tenth or twelfth day, independently of the disorders produced by that severe form of angina of which I have just spoken, there will arise a sudden inflammation of these cervical ganglions; the skin reddens, becomes tense, and in four, five, or six days, a large phlegmon is formed. If it is opened pus will be found, and sometimes the cellular tissue which envelopes the ganglions is sphacelated. I recollect a young lad fourteen years old, in whom this gangrene was so extensive that the neck was dissected out as though by a diffused phlegmon, and the carotids were seen to beat at the bottom of this frightful wound—he got well, but retained a sad deformity. Graves reports an identical case.

These lesions can arise in other parts of the body, where ganglions do not exist, where at least they do not appear to have been the cause of the symptoms. In the young lad of whom I have just spoken, independently of the phlegmon of the neck, another diffused phlegmon appeared the tenth day of the disease upon the leg, which produced a considerable shortening of the tendons and left the patient lame, to such a degree that he was excused from serving, when six or seven years afterwards he was drawn in the conscription.

Besides these acute ganglionic engorgements, besides these diffused phlegmons of the cellular tissue, scarlatina can also give rise to *chronic ganglionic engorgements*.

In infants which are not at all scrofulous, you can see as the consequence of scarlatina, chronic engorgements which commenced with the disease, and which persist two, three, or four months after recovery. In scrofulous infants, these engorgements often terminate in scrofulous ulcerations.

The *urine* during the period of the eruption in this disease, is sometimes *bloody*, and often *albuminous*. It has been estimated, that in this period of serious cases of scarlatina, albuminuria is present one time in three. You know that this alteration of the urine is also frequently observed in typhoid fever, in erysipelas, in variola, and in other affections. Although frequent in the acute periods of scarlatina, albuminuria does not constitute a symptom very different from the albuminuria which is observed, more rarely it is true, in other affections which we have designated.

There is another symptom which is also seen in the acute period of scarlatina, *rheumatism*. The rheumatism of scarlatina is a very common symptom, but as it does not exhibit itself by the symptoms general to ordinary rheumatism, as it is limited in most cases to three or four articulations, and principally to that of the wrist, it is often mistaken. However, by carefully questioning the patients, by examining carefully their articulations, by pressing carefully upon them, articular pains will be discovered in perhaps a third of the cases. This is important, for in the course of the disease, you will often see acute symptoms arise in the joints, general arthritis, and also frequently pericarditis, endocarditis—affections upon which M. Thore (of Sceaux) has recently published some excellent works—affections indicated by Graves, which I have observed myself, and which appear to me to be of a rheumatismal nature. These rheumatic symptoms often have as a result another disease, *chorea*, which is witnessed in young children.

Desquamation commences the tenth or fifteenth day; it may last till the sixteenth or seventeenth day, as we have at present an example in No. 7, in the women's ward. It is apparent first upon the neck and chest, then upon the limbs, upon the back of the hands, upon the palm of the hands, and finally, upon the bottoms of the feet.

Upon the body this desquamation has peculiar features, but which are still more characteristic upon the hands and feet. Upon the body it takes place in scales, which are often no larger than 2 or 3 millimetres, and which again are one, one-and-a-half, and two centimetres in size. Upon the arms, upon the legs, where the epidermis is a little thicker, they may be four to five centimetres in size, the epidermis may be raised in large bands, as after erysipelas and phlegmons, but this desquamation has never the furfuraceous appearance of the desquamation of measles. In rubeola, these scales are so small that they have to be attentively examined to see them, and often

they can only be seen by brushing, so to say, the skin of the patients with the sleeve of your coat, in order to collect the fine powder which this eruption produces. Upon the hands and feet, the desquamation of scarlatina is so distinctively marked that it is impossible to mistake it. There the epidermis is elevated in great patches, resembling pieces of a glove. The desquamation of the feet is the slowest; in some cases the nails, which are, as you know, an epidermic production, fall. This is rare, but it has been observed, and Graves cites a case.

We have still to study scarlatina in the symptoms which arise during its period of decline, and again in its elementary forms, that is to say, in the forms which it assumes when it ceases to present its habitual characteristics, when it is so altered, that unless it be examined attentively, in many cases it would be impossible to recognize it. This part of the history of scarlatina is certainly the most important to study, less on account of its nosological relations than its practical relations.

Of these symptoms, some may be considered as immediate, others as mediate, arriving much later.

The first are the *nervous symptoms*. A person is cured of scarlatina—he is convalescing,—you have no longer any anxiety on his account, when suddenly vomitings take place similar to those of the commencement of the disease; with the vomitings come delirium, a terrible agitation, a great frequency of pulse, and the patient dies in coma or with convulsive symptoms. Still there is no anasarca, no albuminuria, no hematuria, nothing which can explain these phenomena. These symptoms are not only seen in children but in adults also. These symptoms arising in the course of the disease have, you see, a much more terrible signification than they have in the first period, and yet they are then very serious. I could not then tell you too emphatically that in scarlatina, you cannot regard your patient as cured until a long time after the cessation of the last morbid phenomena. There is no disease which shames the physician more, there is none in which one is more subject to errors of prognosis, and these errors are inevitable. The fever has subsided, only a very few slight symptoms remain, you announce a cure, and yet the disease is still formidable, it will kill the patient with great rapidity, and this cannot be foreseen.

Among the immediate phenomena of this period of decline, which takes place during desquamation, *anasarca* is one that deserves your particular attention.

This symptom appears not in the most severe form, but rather in the moderate form of scarlatina. It afflicts the convalescents not only when they are exposed to cold, when they have committed some imprudence, some dereliction in diet, but when surrounded with the very best care, and attended to with the most constant solicitude.

Anasarca often appears in the most sudden manner. It invades the face, the whole body, in some cases it is so great, that an infant for example which the evening before you had left thin and pitiful, seems to you the next day fat, on account of the enormous puffiness which he presents.

This swelling reaches its maximum in twenty-four hours ; it is universal, and to a degree which you will rarely find in anasarca, consecutive to organic diseases of the heart, or Bright's disease. In other cases, on the contrary, the anasarca is very slight, and is limited to the face, and to the extremities ; but it is accompanied by a remarkable paleness of the skin, and it is almost always preceded or accompanied by hematuria.

*Hematuria* is a symptom, in fact very common in scarlatina, although frequently it is not recognized. If the blood be pure, if it be only slightly altered by mingling with the acids of the urine, which is then of a black color, this hematuria is discovered and pointed out by the parents, but it is not noticed when the bloody secretion is slight, the urine remaining of a rose color. The color of bloody urine can also be greenish like whey, a color essentially different from that of the urine of Bright's disease, and from all other kinds of urine. The first few days the micturition of blood may be so great, that the urine can deposit at the bottom of the vessel used in experimenting, blood globules forming a precipitation one or two centimetres in depth. The urine then looks like a strong solution of rhatany. According as the disease progresses, the urine is colored as we have said, but blood can still be recognized by the altered globules which are found adhering to the sides of the glass, or by the enormous quantity of albumen contained in the urine. When this is heated or treated by nitric acid, you do not get a white albumen like that which is obtained in Bright's disease, but a brownish albumen, or a dark colored albumen analogous to that of acute albuminuria.

Ordinarily children recover under a hygienic treatment easy to give them ; but in other cases, notwithstanding this treatment, the anasarca, when it is great, and when it has come on rapidly, carries



off the patients by producing various symptoms of which I shall now speak.

At times some complain suddenly of a violent pain in the head, attended with difficulty in the sight: *convulsions* are then to be feared. It is well to know this fact, for upon the one hand it is important to announce to the families what is to be expected, and on the other hand, in some cases you can ward off these attacks. To hold the head elevated, to place the legs hanging over the side of the bed, and to administer an active purgative, are the means efficaciously employed under these circumstances. But most generally the convulsive attacks come on, whatever may be done, and sometimes immediately destroy the patient; in other cases they are repeated rapidly with intervals of an hour and a half, an hour, or of an half hour; they are almost continuous, one hardly terminating before another commences, and the patient succumbs in a stupor and coma unless prevented by active treatment.

At other times the anasarca reaches the more profound parts. I have seen it attack the veil of the palate, the uvula, the epiglottis, the aryteno-epiglottic ligaments, and in the infant in whom these lesions were present, the symptoms of *œdema of the glottis* arose; he owed his life to an active cauterization of the superior part of the larynx. Cases of persons carried off by an *œdema* of the glottis, during the anasarca of scarlatina, are not rare. Death takes place the more readily, because the throat having been attacked by inflammation, that inflammation has extended to the aryteno-epiglottic ligaments, and the tumefaction produced by the *œdema*, is added to the swelling consecutive to the antecedent phlegmasia.

There are other symptoms which arise during the decline of scarlatina, which are much less known, although they are more so than formerly; I speak of malignant pleurisies, of pericarditis, and of rheumatism.

When we speak of eruptive diseases, we say that rubeola invites the thoracic diseases. This is true, for rubeola first attacks the bronchial tubes,—it declares itself there before it manifests itself upon the skin, as scarlatina manifests itself by a pharyngeal angina before any eruption of the skin. The first symptom of rubeola is pulmonary catarrh, and from this it can be easily understood how that, when this catarrh is more severe than usual, inflammations of the lungs are frequently produced. Thus when on the seventh or eighth day of a rubeola the patient is still feverish, you can be almost certain that he has either an acute catarrh or a pneumonia, or even a pleurisy.

Authors agree on this point, that, on the contrary, in scarlatina the thoracic organs are respected. They are, it is true, in the acute period of the disease, but they are not so in its decline. It is quite common in fact to see in some affected with anasarca, and even in others who are exempt from it, symptoms of disease of the chest suddenly supervene. The lungs in this case are not attacked as in rougeola, but the serous membranes, the pleura, and the pericardium.

These pleurisies of scarlatina are ordinarily malignant, not only on account of the rapidity with which the effusion takes place, but also on account of the quality of the liquid effused. At the eighth or tenth day of the pleurisy, the liquid is often purulent like that of a puerperal pleurisy. The cause of this production of pus is a general infection. On which account the eruption, the inflammations of scarlatina, have an extensive tendency to suppuration.

At the Children's Hospital, I operated for paracentesis of the chest upon a child sick with scarlatina, who at the 12th day already had pus in the chest. In a little patient of whom I shall soon speak, and who had anasarca without having had any eruption of antecedent scarlatina (this however prevailed in his family), I also punctured the chest for a pleurisy at the twelfth day, and drew off 750 grammes of perfectly formed pus.

You will never observe anything similar to this except in those who are under the influence of a diathesis of suppuration, as are, for example, women in the puerperal state. There is, then, in these symptoms of scarlatina the influence of the malignity which you will find again further on.

This cause of suppuration, so active in pleurisy, is less so in pericarditis. In truth, this is more seldom and comes on more tardily. This phlegmasia of the pericardium, pointed out by Graves, has been particularly investigated by M. Thore, of Sceaux, to whom we owe the fact of having established the relation existing between this affection and scarlatina. M. Thore has demonstrated that a certain number of individuals, during the convalescence of scarlatina, take pericarditis, mortal for some, curable for others.

We have said that articular rheumatism was one of the most common symptoms of scarlatina, more so than it is generally supposed. Graves intimated this fact, "In a great number of cases," he writes in his Clinical Lectures, "I have seen articular rheumatism follow scarlatina." Yet it has been overlooked, and for many years I insisted upon this remarkable coincidence. Generally, and what is singular, rheumatism in this malignant disease is not very severe ;

it usually gets well of itself without any intervention of therapeutics. Still this existence of the rheumatismal diathesis explains to a certain degree, the appearance of pleurisy and pericarditis; it enables us to understand why these affections are so common, and how *endocarditis* can arise, for it also follows scarlatina. The rheumatism of scarlatina at first usually attacks the articulations, then the serous membranes of the heart, and the pleura. In some cases, from the very first, it invades the thoracic organs without touching the articulations, like ordinary rheumatism. Sometimes it takes that terrible form, the suppuration form, which kills without mercy. It is as the sequel of scarlatina or of puerperal fever that we most usually observe *suppurative rheumatism*. At first it seems simple for a few days, the articulations become more painful, a more intense fever comes on, delirium supervenes, ataxo-dynamic symptoms appear, and the autopsy reveals the presence of pus in the articulations and in the sheaths of the tendons.

Such are the immediate symptoms of the decline of scarlatina. Other mediate symptoms coming on later, are allied to the first, and among others is *St. Vitus' Dance*.

In children you will see this disease follows very soon after scarlatina, supervening six weeks, two months or three months after. The remarkable works of M. See have thrown much light upon the relations existing between rheumatism and *St. Vitus' Dance*. It is very seldom that children escape the last affection when they have suffered from the first, as it is also rare (but this proposition is less absolute than the preceding) to find a child who has had *St. Vitus' Dance* who does not afterwards have the symptoms of rheumatism. In chorea consecutive to scarlatina, the bellows murmur indicating the pericarditis which had preëxisted, sometimes the friction sound of the pericardium, manifestations of the rheumatism of scarlatina, show that it is through this rheumatism that *St. Vitus' Dance* is allied to scarlatina, constituting one of its mediate symptoms.

I shall pass rapidly in review other symptoms, such as the *chronic suppuration of the eyelids*; the *chronic suppuration of the nose*, which may result in necrosis, tumors, lacrymal fistulæ; *suppuration of the ears*, resulting in *perforation of the tympanum*, partial deafness, *caries of the petrous portion of the temporal bone*, and consecutively *facial paralysis*. We also merely cite the *chronic inflammation of the lymphatic ganglions*, principally the ganglions of the neck, producing serofulous swellings in those of a tuberculus diathesis. These symptoms are also quite common.

[Concluded in the next number.]

## SELECTIONS.

*Cancer Cures and Cancer Curers.*

Mr. Spencer Wells publishes in the *Medical Times and Gazette* a lecture on *Cancer-Cures and Cancer-Curers*. The article is of great length, and is well worthy of perusal; being full of interesting facts relating to the history of this form of empiricism. We make a few quotations:—

"This notion of the *roots* of cancers leads me to say something about Plunket and Guy, cancer-curers of the past century, who adopted it—just as it has been adopted by two American physicians, Dr. Pattison and Dr. Fell, who have treated cancers by secret remedies in London for some years past. The notion is, that their applications not only destroy the tumor itself, but penetrate, by a sort of intelligent power, or elective affinity, in certain directions, corresponding exactly with these supposed roots of cancer—eating away or drawing out those roots, without affecting the sound flesh into which they are ingrafted. On removing such tumors they show filaments of hardened cellular tissue, or portions of subjacent muscle, keeping up the connexion; and on the tumors they preserve in bottles, they show similar prolongations, or shreds, hanging into the spirit in which the tumors are preserved. These are, in all probability, merely portions of the surrounding tissues which have been destroyed by the action of the caustic. Possibly these supposed roots may have given rise to the term "cancer,"—the crab holding firmly with its claws the prey it had grasped. However this may be, you can see at once how likely such reasoning is to affect the imagination of patients.

"Plunket practised as a cancer-curer in London, in the early part of last century. He is said to have known little or nothing of surgery in general, and to have practised from the traditionary directions of his namesake, formerly an empiric in Ireland, who left the receipt for his medicine, with directions for its use, to Steevens's Hospital. Guy, who was a member of the 'Corporation of Surgeons,' purchased the secret of Plunket about 1754, and in his account of the medicine says it had been known by the name of 'Plunket's Poultrice,' and had been used by Plunket and his ancestors for more than a century. A controversy took place between Guy and Gataker, and in the *Lloyd's Evening Post*, March 5th, 1760, old Plunket gives his own receipt, as follows:—

"Crow's-foot, which grows in low ground, one handful, well pounded.

"Dog fennel, three sprigs, well pounded.

"Crude brimstone, three middling thimbles-full.

"White arsenic, the same quantity. All incorporated well in a mortar, then made into small balls, the size of nutmegs and dried in the sun.

"Sir Charles Blicke, with whom Abernethy served his apprenticeship, used Plunket's caustic very much in the treatment of cancerous sores, and his pupils used to be employed in gathering ranunculus and dog fennel, and making them into the paste.

"It is curious to remark how imitative even great discoverers may be. The escharotic effects of arsenic had been known to the Greek and Roman Physicians—they had not been forgotten in the Middle Ages. The mineral had been used for centuries in the removal of cancerous diseases. Plunket adds some crow's-foot and dog-fennel to it, and becomes a great cancer-curer in London. The chloride of zinc is proved to be an excellent caustic by Hancke, Canquoin, Alexander Ure, and others. They even use it to remove malignant growths. Dr. Fell adds some *Sanguinaria canadensis* to it, and four gentlemen of the very highest character and professional position, expressing no disapproval of the use of a secret remedy, and without trial of the unaided powers of the vegetable, publish a certificate on Dr. Fell's 'mode of treatment,' complimenting it as 'ingenious, safe, and easy of application.'

"It was Guy's caustic or rather Plunket's paste, that killed Lord Bolingbroke, and many others were poisoned by the local use of arsenic; yet this did not prevent Lord Arundel from buying the receipt from the wife of a blacksmith, so ignorant that she could not sign her name, but a noted cancer-curer, named Elizabeth Fellow. This was long known as Lord Arundel's Cancer Cure. It was an arsenical powder, and a wash of corrosive sublimate, and no doubt killed a great number of poor women. However, like Plunket's paste, a great many cancerous and other tumors were removed entire by it; and Mr. Justamond, who was Surgeon to the Westminster Hospital some seventy or eighty years ago, tried them both very extensively, arriving at the conclusion that the advantage gained did not compensate for the risk incurred. It is curious to find how Mr. Justamond anticipated much that has been going on in London during the last three or four years by cancer-curers, and it may be worth while to read you rather a long extract from a pamphlet he published in 1780, giving an account of his experiments. . . .

"Landolfi, a Neapolitan Physician, may be looked upon as the prince of the cancer-curers. He has been decorated with Orders of Knighthood by Sovereign Princes, has been alternately flattered and abused, and has made an immense fortune. He made no secret of his plan. 'Landolfi's paste,' as his caustic was called, was composed of equal parts of the chlorides of zinc, bromine, gold, and antimony, made into a paste with flour or liquorice powder. Sometimes he used the chloride of bromine alone, using it both externally and internally; and when the slough had been formed, he used lettuce poultices till it separated. There can be no doubt that Landolfi removed an immense number of cancerous tumors by his paste in Italy, Germany, and France, and that healthy granulations sprung up, and firm cicatrices very often resulted. He used to assert that out of four thousand cases of cancer he had treated, the

disease had not recurred in three thousand. This is what he *said*. He never offered anything like *proof* of the truth of this statement ; and when his caustic was tried in the hospitals of Vienna and Paris the conclusions arrived at were that it was decidedly inferior to the chloride of zinc. Landolfi went himself to Paris, and a number of patients were treated by him in the Salpêtrière, under the inspection of a committee of hospital surgeons. Their Report was published, and my colleague, Dr. Deville, has just favored me with a copy. The conclusions are, that the chloride of bromine, which is the only peculiarity in Landolfi's treatment, is quite useless as an internal remedy ; and that locally it only acts as a blister, raising the epidermis, and exposing the denuded part to the action of the chlorides of zinc and antimony ; acting, you observe, just as the ranunculus did in Plunket's paste, the nitrate of silver as used by Justamond, or like any common blister. The committee reported that the pain produced by this caustic was excessive, and that it did not secure the patients from the danger of erysipelas or hæmorrhage. Landolfi does not appear to have been more successful in Germany and France." . . . . . "Dr. Pattison, as you may be aware, some three, four, or five years ago, occupied much the same position in London that Dr. Fell does now. Both are physicians with American diplomas, who have professed to cure cancer by secret remedies, who have treated a great many patients, and have published accounts of their treatment. The difference between them is, that Dr. Fell has at length made known the composition of the remedy he employs, while Dr. Pattison has not ; although it is pretty generally believed, and not without ground, that the essential part of his preparations was the dried sulphate of zinc, which Dr. Simpson showed in the *Medical Times and Gazette* a few months ago was a most useful caustic."

After some remarks on the comparative utility of caustics and the knife, and showing that an absolute cure cannot be expected from either, he asks, "what are we to do?"

"In attempting to reply to this, let me give you the rule at which I believe our best and most experienced Surgeons have arrived as to the use of the knife. It is, not to use it in the early stages of cancer,—not to use it unless the cancer is actually ulcerated, or growing so fast that the skin is about to give way. In such cases, especially where an open cancer gives great pain, and is wearing away the patient by bleeding or profuse fœtid discharge, the knife is used in the hope of relieving suffering, and prolonging, not saving life. In some other cases, where a cancer causes great mental anxiety to a patient, you may remove it at her earnest entreaty, after explaining fairly the danger of relapse. I should speak here of the knife and caustics in the same terms, as in many cases it will not much signify which you select. In some cases, where the situation of the growth is such that the knife cannot be used safely, caustics are decidedly preferable. In others, again, where time is a

great object, you would choose the knife. It is sometimes a good rule to leave the choice to the patient, representing fairly the advantages and disadvantages of the two methods. If you decide upon using caustic, I think all the evidence before us goes to prove the chloride of zinc to be the most effectual and safest yet employed; that it is a matter of great indifference whether it is employed as a paste or in solution; but that its action is considerably hastened by scoring through the slough, as Justamond did, down to the living tissues beneath, so that they are not protected by the slough from the action of the caustic. This scoring is not so necessary when the chloride is used in solution as when it is used as paste, after destroying the skin by nitric acid; and it is not at all necessary, if you use a pair of galvanic plates as your caustic. If you place a piece of zinc on any raw surface, and a piece of silver near it, connecting the two by a silver wire, the part covered by the zinc is destroyed very rapidly, and the slough formed is a very soft one, which is easily sponged away. I saw a case of cancer of the breast in a lady in 1854, with Dr. Lawrance, of Connaught square, in which we decided, on consultation, to adopt this method, and Dr. Lawrance carried it out most effectually. I should not be at all surprised to hear that the next great empiric who appears in London will profess to cure cancer by galvanism.

"Looking, therefore, upon both the knife and caustics only as the means of removing cancerous growth under certain exceptional conditions, what are we to do in the early non-ulcerated stages of cancer? This opens a very wide subject, which it is quite impossible to treat in a single lecture; but I must point out to you that we can do a great deal more towards arresting, even curing cancer, than is generally believed,—that our art is not nearly so powerless as charlatans assert. Growths, with all the character of cancer, have occasionally disappeared under the influence of remedies: others have remained completely dormant for many years, without affecting the health or shortening the life of the individual; and it is absurd to say that the disease was not cancerous in such cases because the patient recovered, or lived to old age unaffected by the local condition."

The treatment which Mr. Wells chiefly recommends in this early stage is the bromide of potassium with cod-liver oil. Ordinary hygienic measures are useful, alkalies, to relieve digestive disarrangements, opiates, &c.; friction and palpitation are useless, if not injurious, but Dr. Arnott's freezing process is beneficial.—*Medical Circular.*

*On Redness of the Cheeks as a Symptom of Pneumonia.*

Dr. Gubler takes up the old doctrine, that the redness of a cheek, in a case of pneumonia, indicates the side on which the disease lies. Modern authors have paid little attention to the subject, but Dr.



Gubler has satisfied himself, by extensive observation in the Salpêtrières, that the general law is true. The author has guarded against the fallacy which might result from the patient lying on the cheek presenting the greater redness, and has measured the relative temperature of the two sides of the face with the thermometer. Numerous cases are detailed, and the following is the summary of his observations: 1. The redness of the cheeks which commonly coincides with pulmonary inflammation, is not, as is commonly thought, a fortuitous circumstance, but a functional disturbance, bearing a definite relation to the disturbance of the respiratory passages. 2. This redness is not necessarily proportioned to the extent and degree of the anatomical lesion, but bears a relation to the intensity and progress of the inflammatory action. 3. A sensible, and sometimes considerable elevation of temperature (from  $0.50^{\circ}$  to  $5.40^{\circ}$  Cent., or nearly  $1^{\circ}$  to  $10^{\circ}$  F.) accompanies the hyperæmia, and gives it the character of active congestion. 4. The congested cheek corresponds to the lung which is the seat of phlegmasia, or the one which is most affected. 5. The flushed cheek is seen, not only in pneumonia, but also in the majority of other pulmonary inflammations—in those which accompany tuberculization, as in typhoid pneumonia, and even in capillary bronchitis. It appears to be most marked in pneumonia of the apices—a circumstance already pointed out by Bouillard. 6. The production of other morbid conditions may be promoted by the habitual hyperæmia of the face; thus a spot of erysipelas has been seen developed on the cheek of the affected side. 7. The redness of the cheeks in acute diseases of the lung, may be explained by the stimulation of their nervous plexuses extending to the brain, and reflected upon the respiratory nerves of the face. 8. The phenomenon may be regarded as a manifest example of sympathy established between two distant regions by the agency of the nervous system.—*L'Union Médicale*, No. 23, April 28, and May 2, 1857, and *Medico-Chirurgical Review*.

*Utility of a Pudendal Bandage in Procidencia Uteri and Prolapsus Vaginae.*—The *Lancet* of August 22d, has a short paper by Dr. J. M. WINN, with the above title, from which we make the following extract. The idea is practical and worthy of being borne in mind by those treating these troublesome cases:

There are few medical men engaged in obstetric practice who have not had frequently to deplore the inefficacy of the usual means to give support to the womb in cases of procidencia uteri. Pessaries, by dilating and relaxing the vagina, are worse than useless, and the perineal pad is also open to objection. The latter instrument affords a certain amount of support, but it does not prevent the cervix uteri from protruding beyond the vagina, by which means the mucous membrane of the os uteri becomes chafed and irritated through contact with the tape that passes over the pudendum, and to which the pad is attached. Mr. Baker Brown's plastic operation, when it can

be adopted, is unquestionably the most effectual remedy for procidentia uteri: there are, however, many cases where it is not available, and for these I would recommend the double *pudendal* pad, an appliance capable of giving great support to the uterus, of preventing its protrusion beyond the vagina, and thus adding materially to the comfort and health of the patient.

The apparatus is an abdominal belt and a pad attached to it by means of bands, which pass in front of and behind the pelvis. The peculiarity of the bandage consists in its having a double indiarubber pad or compress, which rests on the labia pudendi. The pressure is thus transferred to these bodies, which become, in fact, the immediate supporters of the uterus. Each compress is about four inches long and half an inch wide, leaving an interstice of about three-eighths of an inch inwidth, which forms a groove for the escape of the natural or other secretions.

The proportions which I have given above are the average size, and will be found to suit the majority of cases. It will seldom be necessary for the patient to wear the compress at night, when it can be removed, and thoroughly cleansed with soap and water. When the procidentia is excessive, the indiarubber air-ball pessary may be used, if necessary, conjointly with the pudendal bandage.

In young females who have not borne many children, and with whom economy is a great object, a simple band around the abdomen may be substituted for the abdominal support or belt. The latter appendage should, however, be always adopted when practicable; and where the abdomen is pendulous, its use is indispensable.

The first case in which I was led to adopt the use of a pudendal bandage was that of a young nulliparous female, aged twenty-three. Her complaint, procidentia uteri, came on six years after the first appearance of the catamenia, but she could not assign any cause for the disease. She worked as a harness-maker, in a sitting position, but her occupation did not require any great amount of muscular exertion. After trying the usual remedies in vain, I determined on applying a pudendal compress, and I was gratified in finding that by this means the uterus could be effectually supported.

A case of prolapsus of the anterior wall of the vagina, combined with procidentia uteri, which came under my care last year, illustrates very forcibly the advantages to be derived from a pudendal bandage. The patient was a married woman, thirty-three years of age, who had borne several children, and was suckling an infant when I first saw her. She suffered greatly from a constant desire to micturate. After wearing the compress for a short time, she called on me, and said "The bandage is the greatest possible comfort; I could not do without it."

I have only to add, in conclusion, that the result of my experience enables me to confidently recommend the pudendal bandage as a valuable though simple measure, which is calculated to place in comfort a class of patients, who not only neglect themselves, but are frequently neglected by their medical advisers, and condemned to drag on a suffering existence.

*Puerperal Fever.*—Dr. MURPHY, in the *Dublin Quarterly Journal* for August, has an able article on this interesting subject, from which we make two extracts :

"First, then, we deny the correctness of the term, 'puerperal peritonitis,' and feel assured that by applying it to this disease we fall into some very serious mistakes.

"Peritonitis is not a disease which can *seipso* be communicated ; puerperal fever can. Hence, by calling this disorder by a wrong name, our attention is drawn away from its most dangerous—its contagious character. We speak of it as peritonitis ; nor is it until we find the peritonitis spreading from patient to patient that we take alarm, and at length discover that we are treating a different disorder. It is treated as peritonitis, and the result proves that our treatment has not the slightest effect. This error also causes great confusion in sanitary reports. Puerperal fever may prevail in a locality where the name is never heard. The Registrar-General tabulates deaths under the heads, 'peritonitis,' 'phlebitis,' 'arthritis,' &c., &c. The proportion of these inflammations is thus increased at the expense of this malady, and his returns are deranged.

"*Puerperal fever* does not agree with peritonitis either in the mode of its attack, in its symptoms, in its morbid appearances, or in the influence of remedial agents upon it. Inflammation of the peritoneum can generally be traced to some obvious cause. If after severe labor, inflammation, which commenced in the passages, may extend to the uterus, and thence to the peritoneum ; or perhaps the uterus may become inflamed in its reaction, after the refrigeration and other means necessary to control violent flooding ; hence peritonitis, or rather, metropertonitis.

But when we find peritonitis appearing quite suddenly, after, perhaps, a perfectly easy labor, when the most careful attention has been given to the patient, and no possible cause to excite it exists,—when the inflammation advances with a rapidity and an intensity almost incomprehensible, the conclusion is obvious, that the nature of the complaint is something more than inflammation ; the mode of its attack betrays an obvious difference.

"The *symptoms* in parallel cases are not the same. Peritonitis commences in the neighborhood of the uterus ; the pain is first felt there. The pain in puerperal fever frequently commences in the epigastrium, and the diaphragm may be the first engaged ; violent stitches through the ribs are often one of its earliest symptoms, and precede distention of the abdomen. Headache is not a symptom of peritonitis ; it is constantly met with in puerperal fever. The most remarkable difference, however, may be observed in the effect produced on the digestive organs. In peritonitis the action of the bowels is suspended ; constipation is the result, and often so obstinate as to resist very powerful purgatives. A violent diarrhoea is frequently the first symptom of puerperal fever. Vomiting may occur in both ; but, like diarrhoea, may be a first and most urgent

symptom in puerperal fever, which is never the case in inflammation of the peritoneum.

"When this scourge is in its maximum of intensity, we are not left to such distinctions as these to determine its nature, because, in some of the very worst cases, there is no symptom of peritonitis at all. A case has fallen under my notice, in which the abdomen was perfectly soft, free from pain on pressure, and not the slightest symptom of inflammation in the peritoneum or anywhere else; yet this patient was so completely under the influence of this fever, that she died in twelve hours from the first symptom of the attack, and after death the usual sero-purulent effusion was met with in the abdomen. The intestines were covered with the creamy exudation commonly observed."

Of the treatment of the disease Dr. Murphy says :

"*Depletion in puerperal fever* is a much disputed question. Some are the warm advocates, others the equally zealous opponents of the practice, but it is worthy of notice, that in this controversy, those who applaud depletion recommend twenty, thirty, even fifty ounces of blood to be taken,—a quantity which would be fatal in peritonitis, inasmuch as in some of the severe forms of this inflammation we cannot bleed at all.

"Peritonitis arising from the escape of faecal matter into the intestines—from the bursting of an abscess into the peritoneal cavity—from ruptured uterus, or if it should follow the operation of paracentesis in debilitated subjects—will not admit of depletion, because of the depressing influence of the constitutional shock; but in parallel cases of puerperal fever, in which the powers of life are equally prostrate, Mackintosh recommends a large blood-letting, and in order to adapt his theory to his facts, he calls this condition '*latent peritonitis*'—peritonitis without its symptoms! This inflammation has laid prostrate the powers of the constitution, and depletion, by subduing it, restores them. Such is the theory, but it is obvious that when peritonitis has such an effect, depletion is impossible, and, therefore, we must seek some other explanation of its reported success in the cases quoted by Mackintosh. That which we would suggest is, that the principle upon which depletion is beneficial in puerperal fever is different from that in peritonitis, because they are different diseases.

"*Mercury* is a remedy commonly used to control peritonitis. I have found it perfectly useless in the treatment of puerperal fever; my experience is confirmed by Drs. Collins and M'Clintock, both of whom tried it extensively in the Dublin Lying-in Hospital. Dr. Collins remarks :—'It is supposed by some practitioners that when we can get the system under the influence of mercury, recovery is certain. This is not the fact, as I have seen in several cases in which death took place under these circumstances.' In his valuable account of the recent epidemic in the Dublin Lying-in Hospital, Dr. M'Clintock observes, that '*mercury* was tried in a large proportion of cases and in various doses, but I cannot say that I ever observed

any decided improvement to have been traceable to its specific action on the system. In some cases the disease progressed with such frightful rapidity that absolutely there was no time for the drug to make an impression on the constitution; in other cases mercury seemed to produce diarrhœa, and had, therefore to be laid aside; in two cases death occurred, notwithstanding that pytalism had been excited.

"*Opium* is most valuable in that form of peritonitis in which depletion cannot be employed. It is probable that in such cases it acts as a stimulant, and restores nervous energy, impaired by shock to the constitution. It may have a similar effect in puerperal fever, but opium alone is never sufficient; other agents are combined with it, and with this object *camphor* has been given in very large doses. Dr. Copland has given eight and sixteen grains of camphor combined with opium for a dose.

"If this comparison between puerperal fever and peritonitis proves that there is an observable difference in the manner of the attack, the symptoms, in the post-mortem appearance, and the effect of remedies, it follows that it is incorrect to call them by the same name. Designating this plague by the gentler epithet, 'peritonitis,' becomes a most dangerous misnomer, which we regret to observe so very generally employed."

*Catamenial Gonorrhœa and Syphilis.*—MR. FREDERICK C. SKEY, Surgeon to St. Bartholomew's Hospital, has recently lectured on Gonorrhœal Rheumatism. The London *Medical Circular* gives us the lecture, from which we make the following extract, bearing upon a point of great interest:

I saw some time ago another most remarkable case of this kind—the splitting in pieces of a family might have occurred from the railery and ignorance of the hospital surgeon, but he could not see it. A respectable-looking married man came with this catamenial gonorrhœa; he was very much puzzled about it, but the surgeon laughed at him: "So ho, my fine friend," he said, "you've simply gone and done it, you've been with the girls." The man said not,—that from the nature of his business it was impossible. "Then some one has been with the girls or with your wife, for you have the bad disorder—that's the short and long of it." The man protested, till at last he swore an enormously large oath at the ignorance of us all. "Why, I have committed as many crimes as many men, and why should I be such a fool, if I wished to be cured, as to say if I had, that I had not had intercourse with a woman." I don't believe he had, but that it was one of the dozens of cases where the irregularities of married life had given rise to a gonorrhœa or blenorrhœa, that I defy you to distinguish from common gonorrhœa. I say there is a "tertium quid" engendered during the period of ovulation or menstruation in the female, that may give rise to gonorrhœa, but I do not believe in syphilitic inoculation. If you know how to treat

rheumatism you know a great deal also of this disease. Mr. Abernethy, as I said, already went to the threshold of the subject, as regards "rheumatic gonorrhœa," or what you will see copied in the books and manuals as gonorrhœal rheumatism. Evans and Rose and Hennen, away from the coteries of London, settled the thing for ever. You are probably aware, the prostitutes in France are all examined at stated times, and are furnished with clean bills of health? Well, Evans saw several hundreds of these women examined, and only three were diseased: but he had 153 soldiers under his care at that moment with syphilis! I say how did these 153 soldiers become diseased from three women? How did they get it? Where was it to come from? To my mind, now, it is as clear as that chloroform will produce insensibility, or any other fact in surgery; they got it from the clean women and not from the diseased. I told you of Torres Vedras. This army was inaccessible for a long time, and dozens of officers had intercourse with the couple of girls dancing at the theatre. These girls, mind you, in good health, yet shoals of these officers came to England with bad phagedænic sores. Do you think they got phagedæne directly, as Mr. Hunter would think, from these girls? I don't.

Well, I'll tell you another case, and within a very short period of the present—not to go back to Torres Vedras or Waterloo, or tire you with what you will find decked out in the books of the schools—the case of a lawyer. [I am glad it's a lawyer, if it must be somebody—(laughter)—lawyers are so wedded to do nothing if erroneous to the decision of their judges.] It was, in a word, the counterpart of the first case—seduction—love (the old story)—seduction, gonorrhœa, and a crop of sores. I examined the lady with the utmost minuteness. I sifted this case carefully. I believe there was no disease whatever in the lady nor in the gentleman, previous to the occurrence. Yet all the—what shall I call it—legal evidence was the other way. Legal proof on medical subjects at present is the greatest absurdity under Heaven; because well-bound books on surgery say one thing to a man with a wig and gown on, and because a surgeon's opinion, which is not only *viva voce* and original, but fairly worked out after thirty or forty years' analysis of facts and cases in hospitals, must be thrown to the winds, in favor of the *dictum* of some old book, or some new book copying the old.

I say this material syphilitic infection is all a fallacy. I don't believe either in all that black letter lore of syphilis coming from St. Domingo with Columbus in the 15th century. Gonorrhœa is detailed in our oldest and most sacred of books.

Mr. Skey next stated the particulars of a very interesting case—a case of most frightful phagedænic sores in a gentleman, like those of the officers sent from Lisbon, but where the disease was clearly the result of scrofula, or some such constitutional taint in the gentleman's system, aggravated by those injudicious courses of mercury, ordered for a very simple affection at first. The case was one, also, where the hymen was ruptured for the first time, but not a trace of disease existed in the lady.

"This old mercurial school,\* however, still holds out," Mr. Skey continued to say, "I am sorry that even men like Sir B. Brodie still belong to it; it is not true that a woman who will allow one man to her embraces will allow any other; and if the disease be checked by mercury—*post hoc*, &c.—that we should go on giving it! In this last patient it made all this difference; that whereas Rose, or Evans, or Carmichael would have cured this gentleman without mercury; in following the plan of the older schools, he was at the point of death, owing to the mercury, under the first advice in London, affecting the membranes of his brain. We shall not speak of the hideous mutilations of face and nose, the time sacrificed away from business on the sick list, and the marks which *rupia* too often leaves on the forehead and face. I am satisfied, and you will be so, too, when you see some practice, that all this old-fashioned dosing system with mercury is bad. I would almost go so far as to say, that the very worst cases of syphilis, so called in men that I have seen, have been the result of something wrong with the man rather than with the woman; and where the "*tertium quid*" was aggravated by this system of giving mercury, as a piece of murderous old routine in all cases alike!

Well, a few words now as to gonorrhœa and rheumatism. Is there such a thing as spontaneous gleet? Yes—it is a catarrh of the parts; I know a gentleman who has had gleet; but he has been several months, aye years, in bed for another disease, and he had no possible manner of getting gleet.

You will find gonorrhœal rheumatism is eccentric gonorrhœa; mostly in oldish people, the disease mild or the opposite, fond of fits and starts or aberrations; it is gonorrhœa in a rheumatic system, † but not rheumatism connected as a secondary symptom or as cause and effect with gonorrhœa. I am satisfied gonorrhœal rheumatism and gonorrhœa are children of one parent, and not related as rheumatism the child of gonorrhœa—the parent.

I will now tell you more: I have seen *every form of syphilitic disease* as obtained from healthy women. These cases occur in the better ranks of society, with men who are above suspicion. What is sometimes shocking in a moral point of view is of the utmost value to us pathologically. But I must not dwell on these cases. The

\* When Mr. Abernethy was investigating the nature of syphilis he went round to all the most experienced surgeons in London, and asked two questions: first, whether syphilis is capable of spontaneous cure? and whether the primary symptoms can be removed and the disease cured without the aid of mercury? To both questions he received the well known answer—"Both are totally impossible." Mr. Rose, of the Coldstream Guards, a little while after showed that the spontaneous cure of syphilis is very common, while the old salivations with mercury are as entirely given up as amputations with red hot knives.

† Dr. Fuller shows that acute rheumatism is the result of a morbid matter in the blood, and cold acts as a predisposing cause of eliciting the disease. In about 30 per cent. of cases also it is hereditary. Drs. Egan and Ricord look on "complicated gonorrhœa" as always associated with urethral chancre, and where in the female there are vaginal abrasions the disease will be followed by a mild form of secondary eruption, &c., whether these views may throw any farther light on the subject may be worthy of consideration.



gentlemen come to me expressing their unbounded astonishment, yet if you make the most careful search, even with the speculum, there is no disease in the lady, it would be almost a relief to one's mind to find something, but there is no disease whatever. No! it is all fallacious.

*On the Cholera in Children.*

Dr. Mauthner reports that, in the year 1855, which was a year of scarcity, the cholera at Vienna committed great ravages. Of 78 severe cases occurring in children admitted into his Klinik, 52 died, and 26 recovered; while of 92 slighter cases received into the Polyklinik, 34 recovered, 10 died, and 15 were taken to the Hospital. Of all the epidemics since 1831, this has proved the most fatal. Of near 5,500 cases of cholera which were officially made known, one-half died; and the children, taken alone, did not exhibit more fortunate results, for only one-third of the more severe cases recovered, and altogether only one-half. Dr. Mauthner distinguishes three forms:—*cholera levis* (diarrhœa choleraica), *cholera gravis*, or *vera* (vomiting, diarrhœa, and cyanosis), and *cholera gravissima* (cholera sicca, asphyctica, fulminans). Of all the means he has found to exert the most decided effect in children, is the nitrate of silver, but, in dangerous cases, it has to be given in rapid and large doses. Thus a clyster containing two grains in an ounce of water, with some oil, was administered every hour, while every quarter of an hour a teaspoonful was given of a solution of one grain in two ounces of water. This medicine was often the only one that the child would take that kept on the stomach, while it produced no ill consequences, and always at least arrested the pathognomic watery diarrhœa. This was not necessarily followed by recovery, for the blood, becoming so totally changed from the commencement, all often proved in vain. Frequently, however, by the cessation of the diarrhœa and vomiting, time was gained, which, in a disease of such rapid course as the cholera, is of great value.—*Journal für Kinderkrankheiten*, Band 26, p. 430.

*Statistics of the "Umbilical Cord."* By Mr. BEALE.

"On looking over a record of midwifery cases attended by myself, I was astonished at the number of times in which the umbilical cord was found encircling the neck. In 1,220 cases, it was once wound round the neck in 175, twice round in 32, and thrice round in 7 cases. In 1 case, the cord was crossed over the chest and back, and looped under both axillæ; it measured 58 inches in length. In 3 cases there was a single knot on the cord, and on one funis were two knots. Dropsy of the cord occurred once, increasing its breadth to two inches, and rendering it very tortuous. The shortest cord was five inches in length. (In Dr. Rigby's 'Midwifery' there is mention of a case in which it was but two inches long, and another in which its length was 61 inches, *vide* page 182.) I did not notice any unusual retardation of the labors in those of my cases to which

I have referred, only more or less lividity of the neck and face, according to the time spent in the head passing into the world.

"These cases give, as the average, about 1 in 5 in which the cord is so coiled. It seems surprising that in cases of alleged infanticide the plea of death being caused by the pressure exerted by the funis (without help) has not been seized upon to any extent by the counsel for the defence, for such a liability must tend to diminish the chances of life. These cases, however, rarely go beyond a charge of concealment being sustained."—*Medical Circular*.

#### *Statistics of Placenta Prævia.*

Dr. Schwarz, of Fulda, in Hesse-Cassel, having heard the frequency of placenta prævia stated in a medical society as far greater than he had hitherto believed it to be, examined, in reference to this point, the official returns made by the Hesse practitioners. These were supplied by 150 accoucheurs, during a period of twenty years, *i. e.*, from 1835 to 1854 inclusive. They related to 519,328 births, and among these were only 332 cases of placenta prævia—the numbers varying from 8 to 28 per annum. Of these 332 cases, 246 women recovered and 86 died; 251 children were born dead, and 85 were born living. In 40 instances the women were primiparous, and in 292 pluriparous. Podalic version was performed in 259 cases, and cephalic version in 7, while in 23 instances the children were removed by the forceps, in 6 by craniotomy, and in 13 by post-mortem Cæsarean section. In 8 instances the placenta was removed, and in 16 the plug was resorted to.—*Medical Times and Gazette*.

#### *Chloride of Zinc Paste in Uterine Polypus.*

M. Reybard, of Lyons, has published in the *Gazette Médicale de Lyon*, a case of fibrous polypus, the casting off of which he procured by thrusting little cylinders of chloride of zinc paste into the pedicle, previously perforated by a trocar. The tumor, which was large, and implanted high in the cavity, was removed by gentle traction twelve days after the operation. The patient suffered very little pain. M. Reybard thinks this operation preferable to excision or the ligature; the first being, according to him, liable to fatal hæmorrhage, the second being often followed by severe pain and inflammation. Many objections might be offered to the use of the caustic; and considering the slight pain which generally accompanies the ligature, it is likely that surgeons will pause before they adopt the former in preference to the latter operation. We thought it, however, right to give publicity to M. Reybard's success.—*Lancet*.

#### *Memoranda of a New Method of Measuring the Thorax.*

Dr. Woillez has presented to the Academy of Medicine a new instrument for measuring the thorax, which he terms a cyrtometre, with which he avers that he can at once determine the modifications of certain diameters, and of the circular outline of the thorax. He

is of opinion that the method of mensuration hitherto pursued is erroneous, because based upon two false principles, the one being the supposition that the healthy side presents an uniform capacity, while the diseased side alone is regarded as susceptible of modification, the other being the opinion that mensuration is a means of diagnosis, in the strict sense of the word. The instrument consists of joints of whalebone of two centimetres each, movable in such a way that, when applied to any surface, the whole may take and retain the curve of that part. The outline of the curve of the thorax thus obtained being transferred to paper, the comparison of curves, taken at different periods of the malady, aids to determine the successive changes in the affected part. Without diagrams, it would be useless to go more into detail.—*Archives Générales*, p. 583, May, 1857, and *Medico-Chirurgical Review*.

*Treatment of Paraphimosis in Children.*—M. Bokai thus describes the method which Balassa uses at the hospital for children, at Pesth, to produce compression in this class of cases. The results are, he says, excellent.

After having well cleansed and dried the penis, a strip of adhesive plaster, about three lines wide, is applied longitudinally from the middle of the under surface of the penis, passing over the prepuce and gland, but avoiding the orifice of the urethra, to the middle of the superior face. Another band is carried in the same manner over the gland, from one side to the other of the penis. In large children a third or a fourth band may be necessary over these first thus arranged, another strip three or four lines wide and six or eight inches long is firmly rolled around the gland back of the meatus urinarius, and on the prepuce, so as to cover half of it nearly to the middle of the penis. For greater security a second strip may be applied over this. This compression is well borne, and in twenty-four hours the tumefaction is sufficiently diminished to require the reapplication of the dressing. The difficulty is ordinarily cured in forty-eight hours.—*Schmidt's Jahrbücher*.

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#### EDITORIAL AND MISCELLANEOUS.

In our last number we gave a lengthy account of the labors of the distinguished physiologist, Dr. MARSHALL HALL. We are enabled this month to present to our readers a statement of the lesions found at the autopsy, which we extract from the *Lancet*. It seems that the disease which caused his death had been insidiously increasing upon him for many years, the first symptoms having been observed fifteen years since. In 1853-54 he visited the United States, and the following Winter and Spring he passed in Italy, and after his return to

England from this tour the symptoms of permanent stricture of the œsophagus were fully established. From this time till his death he lived entirely on food taken in a liquid form, and for several months nourishment was given in great measure in the form of enemata, the food taken by the mouth being principally confined to milk. This was continued until the rectum ceased to retain the enemata, when he gradually sunk, and died August 11, maintaining his consciousness to within a few minutes before his death.

The post-mortem examination of the body was made by Dr. Ransom, of Nottingham, thirty-eight hours after death.

The body was emaciated. No external marks of decomposition.

*Thorax.*—The lungs did not collapse on the cavities being opened. The right one was universally adherent by old adhesions; the substance of the lungs healthy; no pleuritic effusion.

The pericardium contained nearly two ounces of dirty red fluid. The heart was flabby (perhaps from cadaveric changes); it contained frothy blood in the right ventricle and auricle. The valves were competent. There were some slight atheromatous deposits on the inner surface of the aorta, which was stained a deep red.

The bronchial glands were larger than usual, soft, and black.

On making examination of the parts higher up in the throat, it became evident that some undue thickening and adhesions existed behind the larynx. The latter was therefore removed, with the pharynx, œsophagus, and trachea. In doing this, the intimacy of the adhesions necessitated that the knife should be carried close to the bodies of the corresponding vertebræ; with every care, however, button-holes were made in two or three places. On removal, it was seen that the walls of the pharynx were extremely thin, and that its cavity was dilated. Through the openings made by the knife there escaped a dirty-brown flaky fluid, of a creamy consistence. The adhesions were to the bodies of the sixth and seventh cervical and first and second dorsal vertebræ.

The parts removed, when examined, showed a stricture of the œsophagus, about the level of the eighth ring of the trachea, and a dilatation, with ulceration and vasculature of the œsophagus and pharynx above the stricture, to the extent of nearly three inches. The stricture was attended with but moderate thickening of the tube, and the aperture was not very small, but the membrane was folded in, so as to present a conical eminence upwards, the apex of which was opposite the narrowest part of the stricture, which here was rather larger than a goose-quill. In this way the passage was almost valved, and food would have had the tendency to pass down by the sides of the eminence into the pouches and sacculi of the ulcerated portion. Indeed, the finger passed down from above, previous to opening the œsophagus, could not enter the passage, though a similar difficulty did not exist if the finger was passed from below the stricture. The upper border of the ulceration was on each side about level with the bases of the arytenoid cartilages, but did not extend so high in the

middle. The dilatation was throughout irregularly ulcerated, soft, pulpy, ragged, of a dirty-grey, or slate color, and with a few loosely-adhering flakes on its surface. Its base was not much thickened, though here and there it was somewhat so, and felt firmer in such parts. The walls of the pharynx and œsophagus were perforated in several places, leading to pouches or sinuses amongst the muscles of the neck, having very thin delicate walls of false membrane. Two of these pouches were very large, and ran upwards on the outer surface of the thyroid cartilage, one on each side as high as its upper border, the right pouch being the largest. A narrow slip of mucous membrane remained at the back of the trachea, but this at the lower extremity was quite undermined.

At the lower part of the dilatation the ulceration had nearly perforated the trachea through the posterior membranous wall, and had set free the right extremities of the fourth, fifth, and sixth cartilages. The pharyngeal mucous membrane above the ulceration appeared nearly natural, except for two or three little rounded elevations, as if there was a deposit in the mucous membrane, each less than half a pea in size. There was a small pendulous polypus attached to the thyro-epiglottidean fold. The œsophagus below the stricture was healthy.

In the mucous membrane of the trachea directly corresponding to the deep ulceration which threatened to perforate it, was a small deposit, or growth—semi-transparent, solid, and slightly elevated. There was a similar one higher up, inside the cricoid cartilage, but it was more opaque and white.

The patch on the tracheal mucous membrane was cut across, and from a section of it were obtained cells which possessed all the characters of cancer-cells. They were delicate, large, irregularly angular, with elongated processes; some were, however, rounded,—had peculiar large nuclei and nucleoli, often several of these in one cell, and sometimes a cell-wall around one or more of the contained nuclei. Some few of the nuclei presented a delicate, regular radial striation, which Dr. Ransom observes he had not before seen. These cells were contained amongst the meshes of the elastic tissue. From the whiter patch on the inside of the cricoid cartilage, similar cells were obtained, but they were fattily degenerated, and therefore were less characteristic. From the base of the ulcerated surface Dr. Ransom found in parts examined no satisfactory evidence of the nature of the pathological process which had preceded; but amongst a mass of granular and fattily degenerated elements, several bodies were always seen resembling retrograde cancer-cells.

The fluids from the surface of the ulcer consisted mainly of molecular detritus and fat, in drops and granules, with a great number of epithelium scales, mostly of the scaly variety; but a few were cylindrical and ciliated, probably separated from the upper parts of the pharynx. In the little elevations on the mucous membrane of the pharynx, nothing was found but globular corpuscles and cells filled with fat granules, of various sizes, and one beautiful hexagonal crystal-like cystin was observed.

A portion of the pharynx and œsophagus, examined by Mr. Cæsar Hawkins, Mr. Pollock, and Mr. Holmes, curator of St. George's Hospital museum, gave the following results :—

1. A portion of the disease was surrounding the great vessels in the neck, and apparently making pressure on the upper part of the pharynx. The interior appeared of a cellular character. Sections showed fibrous tissue, with numerous nuclear bodies, and much fat.

2. A small tubercle, beneath one of the rings of the trachea, contained an immense number of nucleated cells, resembling those of healthy epithelium, but of more curious form and size, also a good deal of fat.

3. A mass containing dark masses (of black pigment), otherwise exactly resembling the portion first mentioned.

—The statue of Bichat, designed by the sculptor David, a notice of which we gave in our August number, has been successfully placed in the courtyard of the school of Medicine in Paris. The uncovering of the statue was made the occasion of a brilliant oration to the memory of the distinguished author of the work "On Life and Death," in which many of the learned and scientific men of France participated. Thus France honors her great men, and thus she stimulates the living by not forgetting the dead. The statue of Bichat, looking down from its pedestal in the courtyard of the school of Paris, through which the thousand students daily pass, tells to each and every one of them how France delights to honor her great men.

—France, too, is cosmopolitan in her distribution of posthumous honors. Not content with raising enduring monuments to her own distinguished dead, in the munificence of her bounty she pays her debt of gratitude to the great of other countries. It is proposed to elevate a statue to the memory of Jenner, and Boulogne-sur-mer, the most frequented point of transit between France and England, has been selected as the place where to erect it. In the rivalry of the two countries it would not be astonishing if the statue at Boulogne should anticipate the one in England.

M. Despres thinks that death, after the inhalation of chloroform, is caused by the base of the tongue, which weighs down upon the epiglottis and prevents the passage of air. The best way of relieving the patient is to introduce the forefinger into the throat, to carry the extremity of it to the superior opening of the glottis, and curving the finger like a hook, to draw the epiglottis and the tongue upward and forward.—*Révue de Thérapeutique*.

[To relieve this difficulty, Marshall Hall recommended that the person should be placed on his face, with his hand under his forehead,



and the chest raised as by a coat doubled up. The tongue then falls forward from its own weight.—EDS. MONTHLY.]

*The American Journal of Pharmacy* thus speaks of Dr. E. R. Squibb, whose article on Chloroform we recently published in the MONTHLY. We wish him success in his new engagements.

Our readers have become familiar with the name of Dr. Squibb as the author of various papers which have appeared in this journal during several years past; during which period (and before) he has conducted the manufacturing department of the United States Naval Laboratory, at Brooklyn, in a highly satisfactory manner, and supplied to the navy the pharmaceutical preparations of the Pharmacopœia in a uniformly good condition. Notwithstanding the importance of his service, the emoluments of his office are limited to the small salary of Passed Assistant Surgeon. At his own request Dr. Squibb has been detached from the Naval Laboratory in order to accept the position, *temporarily at least*, of manufacturing copartner in the firm of Thomas E. Jenkins & Co., of Louisville, Kentucky, which firm is about to establish, in connection with their drug business, a large manufactory of chemical and pharmaceutical preparations under the title of "Louisville Chemical Works." Prof. Smith, of the University of Louisville, is also a partner in the firm. Dr. Squibb will have charge of the manufacturing department of the works, and Mr. Jenkins the commercial department, leaving the financial department for Prof. Smith.

Located near the centre of the great valley of the Mississippi, the firm intend to seek their market chiefly West of the mountains, and as the pioneer establishment of this kind, out there, proposes to adhere strictly to the Pharmacopœia in the purity of their preparations, on which condition only Dr. Squibb entered the firm, as he is well known as the uncompromising enemy of adulterated drugs and chemicals, come they from what quarter they may. We trust, with intentions so fair, they may meet success, and join our friends Powers & Weightman, Rosengarten & Sons, and other houses, in developing the resources of this great country, and stopping the influx of foreign chemicals.

The following anecdote of the celebrated Surgeon of the Empire, we take from the *Edinburgh Medical Journal* for July:

*Larrey, the Soldier-Surgeon.*—If there is any man of whom the Pyrenees may be proud to have given birth, it is he who was pronounced by Napoleon I. to be the most honest man in his Empire. Endowed with a noble heart, vast intelligence, and a vivid imagination, Larrey was indeed worthy of the friendship given to him by the greatest man of modern times. His name, too, holds an equally distinguished position at the present day, not only among men of science, but amongst all who are the benefactors of humanity. "If ever the army raises a column of gratitude," said Napoleon, "it



owes one to Baron Larrey." This debt has been paid ; the government, the army, all France, has joined in the national labor of love, and the truthful bronze now recalls to us the venerated traits of him, whom we may justly term the father of French military surgery ; for, from Ambrose Paré,—of whose illustrious memoirs but an incomplete fragment has been transmitted to us,—up to the first revolution, medicine was in its infancy. In the first days of the republic, everything had to be done ; it was necessary to create, to organize ; and the genius of Larrey alone was capable of this immense undertaking. Formerly our wounded soldiers were carried to a distance from the field of battle to receive the surgeon's first attentions ; and many, too many, alas ! died before they traversed the route to the ambulances. Larrey, seeing the insufficiency and danger of this system, at once ordered that the wounded soldier should be cared for, even under the fire of the enemy, and that the military surgeons should share with their comrades the danger of war ; from this arose his system of ambulance carriages, containing every necessary provision for acting on the spot. From this time, too, the French army surgeon, who had before been considered a sort of accessory to the army, gained definitively his place of honor on the field of battle. Larrey formed one of that phalanx of *savants* who accompanied Bonaparte to Egypt ; he was the friend and rival of Baron des Genettes, who immortalized himself by his heroic conduct among the plague-stricken at Jaffa. In this rough and laborious campaign he rendered such services to the French army, that this page alone in his life would have served to hand his name down to posterity. Later, in all the capitals of Europe, his voice was heard among scientific men, and philosophers of all nations came to listen to his instructions. Even kings honored him with their friendship. After the coronation of the Emperor, when that great captain wished personally to distribute the star of the Legion of Honor, he told Larrey that he intended to name him commander of the order. But although a surgeon-in-chief, he would not receive alone this distinction ; and he told the Emperor that he would not accept the honor, without Baron Percy—another eminent surgeon—were accorded the same favor. Napoleon yielded, and the two representatives of French military science were thus named at the same time commanders of the Legion of Honor. This fact pictures the character of the man. Above all else a man of heart, he always remained pure and independent among the courtiers, who only echoed the opinions of their master. It was not obstinacy, but a free spirit and truthful disposition. Let us see what he did at Esling, when the French army was surrounded, and want began to be felt, even in the ambulances. He told them to kill his own horses, and upon his responsibility to sacrifice a great number of those of the superior officers, to make *bouillon* for his sick and wounded. The indignant generals, of course, demanded reparation against Larrey, and the Emperor summoned the surgeon to his presence. "What have you to say to this accusation?" said he. "Sire," replied Larrey, "the sick

are my children ; I owe to you an account of their lives ; under these circumstances, I but did my duty. Besides, of what do these gentlemen complain ; they have a horse each left, while I have killed all mine !" What could Napoleon do ? He could not be angry ; he pardoned the man for his intrepidity and honesty. When the harassed and maimed relics of the Grand Army were crossing the bridge of the Beresina, not one stayed to save his general, his friend, his father, not even to preserve his flag. Suddenly, on the middle of the bridge, a buzzing whisper ran through the crowd—a name is pronounced—hands are stretched out—a man is passed from arm to arm with all the care affection can suggest—that man was Larrey ! After the battles of Lutzen and Bautzen, a number of soldiers were wounded in the hand by ill-constructed weapons. At the same time treason was suspected in the camp, and the gloomy mind of Napoleon saw in this a fresh proof of it. He summoned his generals to a council of war ; they confirmed his suspicions, and, furious with jealous rage, he ordered Larrey to draw up a report upon the matter. Larrey presented it, and the Emperor paced the tent in great agitation, digging up the turf with the end of his cane. "These men are guilty," he said. "They are not, sire," replied the intrepid surgeon ; "the accusation of treachery is a calumny for which you will have to account to history." "Begone," said the Emperor, "I will make you know my pleasure." Larrey, calm in the security of a good conscience, retired, satisfied that he had done his best to save the lives of the innocent. A few hours passed, and at last Napoleon summoned him. "Thank you, Larrey," said he ; "alas ! why am I not always surrounded with men like you ?" Bonaparte spoke truly ; if he had only been advised by men of such energy and greatness of heart, in the days of his misfortunes, he might never have fallen. We must return to Larrey at Waterloo, where he had gone to assist at the obsequies of the Empire. His horse was killed under him ; he was wounded in two places ; he was crushed on the ground among the flying crowd ; they had made him prisoner, and the Prussians were on the point of shooting him, when one of the enemy's surgeons, an old pupil at Vienna, recognized his old teacher, and hastened to apprise Blucher. His life was saved, and a guard of honor escorted him to the French frontier. They could scarcely do less for such a man. After the Restoration, he retired into the shade, shut out from the Court. Surgeon-in-chief of the hospital of the Guard, he had neither distinctions nor honors ; he was neither Peer of France nor Grand Cross of the Legion of Honor ; he had almost forgotten the road to the Tuilleries of the Bourbons. One day a guard presented himself to him with a letter of recommendation. "What do you wish ?" said Larrey. "I would like to be corporal, Monsieur le Baron." "Alas !" replied the surgeon of the Emperor, "I have made generals in my time, but to-day I don't know whether I have interest enough to make a corporal." In 1830, the hospital of the Guard was on the point of being attacked by the mob ; the authorities were unable to check them, when

Larrey appeared and said : " My friends, we have only sick people here ; every good Frenchman ought to respect *this* asylum." The crowd instantly retreated with a round of applause to the gallant veteran. He was an old man, still active and energetic, however, and he felt that but a few years separated him from the tomb, when an irresistible desire seized upon him to revisit Africa, the scene of his earliest labors. The Government yielded to his request, and he set out. His journey across the African provinces was one continuous ovation, an immense triumph ; and his son, a *savant* worthy of the great name he bears, witnessed how his illustrious father was venerated by the French army. The presentiment entertained by everybody as to the result of climate and camp-life upon Larrey, soon realized itself ; and on his return to France, he fell a victim to the illness incurred by his devotion. His remains were conveyed to Paris. The Government of July refused the tomb of the Invalides to the captive of Saint Helena, but the city of Paris spontaneously awarded a place therein to the citizen who had so well deserved of his country. A crowd of soldiers, *savants*, and people, mingled in one mournful procession, followed Larrey to his last resting-place. His numerous works, conceived, as it were, under the fire of the enemy, collected from nature and enriched with ideas the most rare, are mines of information of which France may be proud. Friend of the Emperor, philosopher, a man of excessive energy, noble character, true heart ; masculine and imposing in appearance even among the greatest men of the empire, Larrey is worthy of Immortality.

*Therapeutical Properties of Iodate of Potassa.*

The happy results obtained with the Chlorate of Potash in different affections of the buccal mucous membrane have induced MM. Demarquay and Gustin to ascertain if the therapeutical properties of this salt were not common to the other salts, whose chemical analogy to the chlorate was so striking, for instance, the alkaline iodates and bromates. Following up this purely theoretical idea, MM. Demarquay and Gustin made their first trials in connection with M. Monod, in whose service their experiments were conducted.

They first used the iodate of potassa, which they themselves had prepared, in order to secure its chemical purity.

The success attending these trials exceeded their expectations. During the past year they constantly substituted the iodate of potassa for the chlorate of the same base, and now feel authorized in replacing the chlorate by the iodate, which they say acts quicker, more energetically, and in smaller doses.

The iodate of potassa has given most excellent results in cases where the chlorate had failed. The dose varies from grs. v. to ʒj.

They prescribed this salt in diphtheritis, in mercurial stomatitis

especially, and in a case of gangrenous stomatitis ; in the last, the efficacy of the medicament was very prompt.

Its action upon the pharyngeal and buccal mucous membrane in the healthy state, they add, is very remarkable. In the dose of from  $\mathfrak{Dj}$ . to  $\mathfrak{Zss}$ . it produces in the mouth and throat a particular sensation of constriction.

The glandular secretion seems to diminish under its use, and if we might again give ourselves up to speculation, we think that by the introduction of the alkaline iodates and bromates into therapeutics, an advance will perhaps be made towards the cure of pseudo-membranous affections.—*Revue de Thérapeutique*.

[It will be observed that this salt is not the *iodide* of potassium, but the *iodate* of potassa.—EDS. MONTHLY.]

*Large Doses of Opium and its Salts, in Cases of Insanity.*

Dr. Richard Oliver, Resident Physician to the Salop and Montgomery counties (Eng.) Lunatic Asylum, has lately published in the *Lancet* a letter to one of the Commissioners in Lunacy, upon the use of opium. We have not room for the whole letter, but note the doses which were given in several cases. One patient, laboring under melancholia, took three grains of hydrochlorate of morphine regularly, "for some time," with her evening meal. Not improving, after a fortnight of this treatment, the dose was increased to four grains and a half daily. She then slept three or four hours every night. Several weeks later (precisely how many is not stated), on the 1st of December, with the view of controlling a more than ordinary degree of agitation and distress, six grains of the hydrochlorate of morphine, and on the 2d, five grains were exhibited, in addition to the regular doses, through the day. On the 7th of December fifteen grains of powdered opium were given in the forenoon, and the same quantity was repeated at bedtime. Under this treatment she rapidly improved ; but the same dose (fifteen grains of opium) was continued twice a day till the 14th of February, when she took half a drachm of the tincture of opium three times a day, in combination with hydrochloric acid. The patient recovered.

Dr. Oliver also gives the doses taken at the time of his writing by fifteen individuals. Two women took each six grains of hydrochlorate of morphine three times a day ; of powdered opium, one man and one woman took each *fifteen* grains twice a day ; one man *ten* grains twice a day ; one man *fifteen* grains once a day ; one woman *ten* grains once a day ; two men *five* grains *twice* a day, and six men *five* grains once a day. Another patient was taking four grains of hydrochlorate of morphine, when, by mistake, three doses (this is *twelve* grains) were given as a night draught. She slept soundly and awoke with her reason comparatively undisturbed. Her convalescence dated from that period.